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Does the method of teaching make a difference?

A comparative study of three groups with three different teaching methods

Master's Thesis

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VAASAN YLIOPISTO**Humanistinen tiedekunta**

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TIIVISTELMÄ:

Tämän tutkimuksen tarkoituksena on selvittää, vaikuttaako opetusmenetelmä englannin kielen oppimistuloksiin. Tutkimuksessa vertaillaan kolmea eri opetusmenetelmällä opetettua peruskoulun kuudetta luokkaa. Tutkimuksen opetusmenetelmät ovat kielikylpyopetus, osittain englanninkielinen opetus sekä perinteinen opetusmenetelmä, jolla tässä tutkimuksessa viitataan suomalaisissa peruskouluissa yleisimmin käytössä olevaan kielenopetusmenetelmään. Tärkein ero opetusmenetelmien välillä ilmenee englannin kielen käytössä. Kielikylpyopetuksessa käytetään yksinomaan englantia, muissa menetelmissä englantia ja suomea rinnakkain. Tutkimuksen materiaali koostuu luokkien testituloksista. Testissä mitattiin kolmea osa-aluetta: kieliooppia, sanastoa ja kirjallista tuottamista. Testituloksia vertailtiin sekä kvantitatiivisesti numeerisen arvioinnin avulla että kvalitatiivisesti arvioimalla virheiden vaikutusta kommunikaation kulkuun. Oppilaiden kirjoittamista teksteistä tehtiin virheanalyysi, jossa aineistosta löytyneet virheet jaettiin kirjoitusvirheisiin, sanastollisiin ja kieliopillisiin virheisiin. Toisesta kirjoitustehtävästä laskettiin lisäksi leksikaalinen tiheys sekä tekstien pituus.

Tutkimustulokset osoittivat, että kvantitatiivisesti kielikylpyoppilaat saivat parhaita tuloksia kaikissa osioissa paitsi kirjoitustehtävässä, jossa osittain englanniksi opetettu ryhmä sai parhaat tulokset. Perinteisessä opetuksessa ollut ryhmä sai heikoimmat tulokset kaikissa osissa, ja myös ryhmän sisäiset erot olivat suuremmat kuin muissa ryhmissä. Virheanalyysi osoitti, että kielikylpyoppilaat tekivät määrällisesti eniten virheitä ja osittain englanniksi opetettu ryhmä vähiten. Kaikissa ryhmissä esiintyi suhteellisesti eniten kirjoitusvirheitä ja vähiten sanastollisia virheitä. Kielikylpyoppilailla oli eniten ruotsin kielen vaikutuksesta johtuvia virheitä ja perinteisessä opetuksessa olleilla eniten vaikutteita suomen kielestä. Kvalitatiivinen virheiden tarkastelu osoitti, että kielikylpyoppilailla virheet olivat useimmiten laadultaan sellaisia, etteivät ne häirinneet kommunikaatiota. Perinteisessä opetuksessa olleet oppilaat tekivät sitä vastoin useammin sellaisia virheitä, että ne merkittävästi vaikeuttivat tai jopa katkaisivat kommunikaation.

AVAINSANAT: foreign language learning, immersion teaching, content-oriented teaching, error analysis

1 INTRODUCTION

The aim of this thesis is to study whether the language teaching method affects the written English skills of Finnish primary school pupils. The traditional method of teaching English in Finnish schools has in recent years been rivalled with a variety of different teaching methods. Several schools offer language education by a host of new methods, including immersion, language showering, content integrated learning, teaching in English etc. The focus in traditional language teaching has been on grammatical rules and phrases learned by heart, while the new methods aim at educating active language users by, among other things, using more English than Finnish in the classroom and concentrating on natural communication rather than grammar. It has been argued that when the focus of teaching shifts from teaching about a language (the traditional method of teaching) to teaching in a language (the alternative methods, for instance immersion), the pupils become more fluent language users, and grammatical knowledge will follow the language skills (Buss and Laurén 1997a: 7). This study will compare language test results of three sixth grades in three different primary schools in Vaasa which have been taught English using different teaching methods. In the traditional method (TG), the teacher uses mainly Finnish, the mother tongue of the pupils and less English, the target language. In the immersion method (IG), the teacher only uses English. The third method, the content-oriented method (CG), is a mix of the two aforementioned styles.

A brief overlook of the previous studies will follow next, with hypotheses set for the study at the end of this chapter. The material of this study will be presented in Chapter two. A more detailed description and theoretical background of the three teaching methods and their implementation by the teachers will be given in Chapter three. Chapter four will present the concepts of lexical density and error analysis, which will be used in the analysis of the written texts. In Chapter five, the results of the tests are first given in quantitative form, followed by a qualitative discussion of the findings. Finally, the writing tests will be further analysed by the study of the length of the texts and lexical density, as well as the errors made by the pupils. Chapter six will assess the

test and methods as well as the outcomes of the test. Conclusions are drawn in Chapter seven.

Immersion teaching in Vaasa has been studied extensively. The studies have mainly concentrated on the learning of Swedish, which is the immersion language, and the development of Finnish, the pupils' mother tongue. Although the immersion program has been multilingual from the start (Laurén 1998: 33), learning foreign languages has received much less attention in research than learning Finnish and Swedish. Earlier studies suggest that immersion pupils learn foreign languages more easily and gain better results than non-immersion pupils in some aspects of language learning, especially in vocabulary (see, e.g. Björklund 2003 and Björklund and Suni 2000, Lainas and Nurmi 2002). Immersion as a language teaching method has not often been compared with other language teaching methods. The studies have either used no comparison group at all (for instance Heinonen 1996, studied the influence of Swedish on immersion pupils' written English) or the comparison group has been a class of non-immersion pupils who have also learned English with the immersion method (Lainas and Nurmi 2002). Most of the studies, for example, of the teaching of English by the immersion method in Vaasa are unpublished pro gradu-theses.

According to earlier research into immersion teaching, its benefits seem undeniable. For example, Lainas and Nurmi (2002: 75-78) studied spoken English skills of two fifth grade classes, an immersion class and a regular class as a comparison group, and found that immersion pupils are generally more active and produced more speech and more complex clauses than the comparison group. They also had a wider vocabulary than the comparison group. In the comparison group, boys were considerably more productive than girls, whereas there were no great differences between boys and girls in the immersion group. Although immersion pupils made more errors, they were more active to correct and retain their communicative intentions than the comparison group. These findings have been supported by Björklund (2003: 10-11), who suggests that immersion pupils may be risk-takers whose primary intention is to communicate even at the cost of correctness. Björklund studied the written production of three fifth grades of which two groups were immersion pupils and one a regular teaching group. All groups had studied

English by the immersion method. The results showed that immersion pupils wrote longer essays but misspelled words more often than the comparison group. The results of these studies suggest that pupils in the immersion groups (to whom almost all the subjects are taught by the immersion method, that is, using a language other than the pupils' mother tongue) gain better results in language learning than non-immersion pupils (who only receive language teaching in the immersion method) even when the method of teaching is the same.

Another study (Järvinen 1999) compared the English skills of two groups, a CLIL (content and language integrated learning) group to whom most of the subjects in the curriculum were taught in English and a group who had been taught English as a foreign language in the traditional way. The findings indicated that the English skills were better developed in the CLIL group. The CLIL pupils learned the language implicitly and gained better results than the comparison group. Especially implicit knowledge of grammar, which was tested by letting the pupils judge the correctness of a number of sentences, was considered to be better developed in CLIL pupils than the comparison group. (Järvinen 1999: 139-140.) In the present study, the findings of this particular study do not necessarily apply as such, as the content-oriented pupils have not studied all academic subjects in English as did the groups in Järvinen's study. Instead, only some subjects, for instance music, arts or handicrafts are taught in English. The present study, then, aims at finding out whether a partial language integration, where only some subjects are taught in the foreign language, has similar effects as the full immersion.

Considering the findings in the studies of Björklund (2003), Järvinen (1999) and Lainas and Nurmi (2002), the starting point for this study is the assumption that the pupils in immersion and content-oriented teaching would be more productive in English than the pupils in traditional teaching. The first hypothesis is therefore that immersion and content-oriented groups will produce longer texts than the pupils in the traditionally taught group, because they are used to actually using the target language in the classroom. The second hypothesis basing on earlier findings is that the immersion pupils would make most spelling mistakes. In addition to these hypotheses, two questions arose deriving from the findings of earlier studies that the present study aims

to answer. The first question is whether the immersion pupils would have more interference or transfer from Swedish and Finnish than the other groups, as English is their third language and they have studied Swedish from kindergarten on. Secondly, as immersion teaching concentrates on the message rather than the form, the question is whether the immersion pupils will get lower scores in grammatical exercises.

2 MATERIAL AND METHOD

The teaching methods whose results I will compare are the immersion method at Keskuskoulu school (IG, or immersion group will be used to refer to this group), the traditional method at Länsimetsä school (TG, or traditional group) and a mixed method of traditional and content-oriented teaching at Suvilahti school (CG, or content-oriented group). The teaching methods will be discussed in detail in the next chapter. Keskuskoulu school is the only school in Vaasa where English is taught by the immersion method by specialized teachers, and Suvilahti school the only school to teach English with the content-oriented method. For this reason, the pupils in these two schools were chosen for the test. Keskuskoulu only had one sixth grade of immersion pupils and Suvilahti school only one sixth grade overall so choosing a suitable class was not a problem. As I wanted to take the third class from a different school instead of using a regular (non-immersion) class from Keskuskoulu to make sure that the two groups would not have the same teacher, Länsimetsä school and the sixth grade there was chosen.

The material of this study consists of exam papers of 65 pupils. The test was designed to assess the pupil performance in different areas, and hence the test was divided into three sections: a vocabulary section, a grammar section and a writing section, in which the pupils were expected to produce a piece of text. All of the three sections were graded and the results compared quantitatively as to the differences in the points and the length of the stories. The errors made by the pupils were calculated and divided into vocabulary, orthographical and grammatical errors. Qualitative observations assessed the test papers in more detail. They were examined for lexical density and the errors made by the pupils were further analysed by comparing the errors as to what extent did they interfere or hinder communication. The design and the structure of the test will be explained in more detail in the next chapter.

In addition to the tests, regular classes were observed in each of the classrooms in order to get a view of the differences between the teaching methods in practice. The observations took place in March and April 2003, one to three weeks before the test. A

total of 10 lessons were observed, 4 in Suvilahti school and 3 lessons in both Keskuskoulu and Länsimetsä schools. More lessons were observed in Suvilahti school, because they had two kinds of English lessons; teaching in English and teaching of English and increasing the observed hours made it possible to observe both kinds of lessons. The difference between the two kinds of lessons will be discussed in more detail in Chapter 3. In order to make the differences between the teaching methods visible, the observation concentrated on the exercise types used in the lessons. There were four exercise types used; exercises lead by the teacher, for instance when the teacher asked questions or taught a new issue, pair work, group work and independent work. The exercise types used in each lesson were calculated. The immersion teaching in particular, but also the content-oriented teaching aim at activating the pupils and facilitating communication during the lessons (for instance Buss and Laurén 1997b: 22-23), and for this reason it is assumable that there is more pair work and group work in these two groups. Also of interest during the observation was the language use; to what extent do the teachers of content-oriented and traditional groups use English and whether the immersion teacher only uses English. Furthermore, it was observed how much English the pupils speak in the classroom. The notes taken during the observations will be discussed further in Chapter 3, along with a more detailed description of the teaching methods.

The material for the present study was collected by constructing a test which consisted of four parts. The test in full can be seen in Appendix 1. The first part was designed for collecting background information where the pupils stated their name and assessed their knowledge of English. The second part was a vocabulary test which consisted of three exercises. In the first exercise the pupils were expected to provide a suitable word according to a given definition, for example “it’s a language” or “it’s a sport for two”. In the second exercise the pupils provided the opposites of given words, for example “remember” or “everything”. The final part of the vocabulary test was an exercise where the pupils were expected to produce several words on a given subject, for example “question words” or “nature words”. The third part was a grammar test with two exercises. The first exercise concentrated on verb forms, tenses and concord. In this exercise, the alternatives were provided in brackets after the sentence, and the pupils

had to choose the right alternative, for example “I _____ got a piano at home. (has, is, am, have)” In the second exercise the pupils had to fill in a missing word in its correct form. The word was, again, provided in brackets in its basic form. For example “I think bananas are _____ (good) than apples” or “Tim, Thomas and James _____ (be) best friends.”

The types of the exercises in vocabulary and grammar parts of the test were familiar to the pupils as similar exercises were used both in their exercise books and tests. All the instructions in the first three parts were written in English. The fourth and the last part of the test was free composition where the pupils were expected to write a short message. The instructions for the message were given in Finnish, and the pupils were expected to write the message in English, including all the details listed in the instructions. Their final task was to produce a longer piece of text on a familiar subject. The two alternatives were either writing a letter of introduction to a new friend or writing about a favourite hobby. The instructions in the final task were in Finnish.

The test was constructed and administered for three sixth grades in Vaasa. In the planning of the test, special attention was paid to the pupils’ level of English as well as the exercise types they were used to doing. The test was sent to all three teachers beforehand for checking and comments, in case they thought a particular exercise or a detail of it would be too easy or too difficult for the pupils to complete. The teachers did not suggest any changes to the test itself, but a few practical details were agreed on to make sure that the test situation would run as smoothly as possible. The teachers suggested that the pupils should write their names on the papers to make sure that they would take the test seriously. However, individual names will not appear in the discussion of the findings of the present study. In the analysis of the tests, individual pupils will be referred to with a code. The code states the teaching group, gender and an individual number of the pupil. CG/B4 refers thus to a boy number four in content-oriented group. The coded list of all the examples used in the analysis will be given in Appendix 2.

The test was given to all three classes on the 15th and 16th of April, 2003, and the test conditions were kept as similar as possible. The time of the test was in all cases around midday to avoid possible tiredness in the early morning or concentration problems in the late afternoon. The pupils had a pencil and an eraser with them, and no other equipment was allowed. There were a total of 65 participants to the test. The immersion teaching was used for 22 pupils, 14 girls and 8 boys; the traditional teaching for 25 pupils, of which 12 were girls and 13 were boys, and the content-oriented teaching for 18 pupils, of which only 3 were girls and 15 boys. The time allotted for the test was one lesson, 45 minutes, but the pupils were allowed to finish the test even if it took longer than that. IG pupils completed the test in 27-40 minutes, TG in 27-52 minutes and CG in 26-47 minutes. The oral instructions for the test were given in English. To follow the instructions in English was easiest for the IG, as expected as they were used to getting all instructions in English. IG pupils had thus no problems understanding what was expected of them. In TG and CG the instructions required more repetition. Overall, the language of the instructions appeared not to be that important, as the most difficult exercise proved to be the first writing exercise, for which the instructions were given in Finnish.

The exam papers were examined quantitatively by grading the replies and comparing the numerical information. The length of the texts was also compared. Error analysis was made of the errors in the writing exercises in order to see the proportions of different error types. In error analysis, all errors found in a given corpus are divided into categories according to the source of the error. There are many possible ways of categorizing the errors. (Brown 1994: 206.) In this study, the errors are categorized into orthographical, grammatical and vocabulary errors. Qualitative assessment complemented the quantitative analysis. The writing exercises were examined for lexical density. In order to find out the lexical density in text or speech, words are first divided into grammatical words and lexical words. Lexical density is then calculated by counting the proportion of lexical words to the total number of words in a given text. The term lexical density refers to how densely packed the information is in a given sentence or text. The higher the lexical density, the more information packed the text is. (Halliday 1989: 61-64.) A more detailed overview of error analysis and lexical density

will be given in Chapter 4. In addition, in analysing the errors, qualitative analysis was used to determine differences between the errors as to what extent the different errors hindered communication.

3 TEACHING METHODS IN THE STUDY

In this chapter I shall introduce the basic principles of the three teaching methods, the immersion method, the traditional method and the content-oriented method, starting with a theoretical introduction and complementing the discussion with examples of the praxis of the different methods in the three schools. The curricula of each school concerning the teaching of English will also be briefly introduced before discussing the notes made during the classroom observation. The aim of the observation was to notice differences in the praxis of the teaching methods. In order to do this, the exercise types used in the lessons were calculated and their proportions counted. Of interest during the class observations was also the use of English and Finnish in the classroom. During the class observations, it became evident that each teacher implemented the method in her own personal way. As Diane Larsen-Freeman points out, “decisions that teachers make are often affected by exigencies in the classroom rather than by methodological considerations” (2000: xi). Indeed, there were occasionally more deviations from the theory and more similarities in the three classrooms than expected. One possible explanation for this phenomenon may be the fact that all three schools used the same book as their primary material.

The Finnish national curriculum concerning the teaching of the first foreign language states that all pupils should be roughly on the same syntactical and communicative level in their foreign language skills at the end of their sixth year of the primary education regardless of the teaching method used. It does state, however, that immersion pupils and pupils who have received instruction in the foreign language are expected to have reached slightly higher standards in vocabulary acquisition and language proficiency. The language teaching in all methods concentrates on basic and concrete communication skills. At the end of the sixth grade, the pupils should have a basic knowledge of the central grammatical structures of the target language, and they should be able to cope with everyday situations in the target language both orally and in writing. Furthermore, the pupils should understand simple written language and be able to write short messages about simple and concrete everyday situations. (www.edu.fi/julkaisut/maaraykset/ops/perusopetus1_2kok3_9.pdf) Importantly,

however, in Finland, the national curriculum only provides the basic framework for teaching, and the schools can further define their own teaching arrangements, as well as any special foci on teaching.

3.1 Immersion teaching

Immersion as a teaching method originates in Montreal in the middle of 1960's when it was discovered that the children speaking French, the minority language of the region, learned the majority language, English, naturally in the playgrounds and the schoolyards. The English-speaking parents wanted their children to achieve functional French skills in the same way, and immersion teaching was developed to achieve this goal. (Baker 1996: 332-333.) The most distinctive feature in immersion teaching is that only the target language is used for all teaching and communication between the teacher and the pupils, both in and out of the classroom. Immersion could, therefore, be described as teaching in a language, not about a language. In immersion teaching, language is considered a tool rather than as a goal. (Buss and Laurén 1997a: 7.) The target language is used for meaningful communication in the classroom from the start, and pupils are encouraged to use the target language as much as possible from the very beginning. Teaching is concentrated on the message rather than the form. Grammar is not taught as distinct rules, but it is rather expected that the pupils develop a natural interest in the form of the message later on when they have been using the target language for some time. (Buss and Laurén 1997b: 23-24.)

The teacher's role in the immersion method differs somewhat from that of the traditional teacher, and there are a few basic rules that an immersion teacher should follow. The first is Grammont's principle according to which the teacher should only have one linguistic role with the pupils. This means that an English immersion teacher should only use English with her/his pupils whenever they meet, whether it is in the schoolyard or in town. Secondly, the teacher should not speak more than one fifth of the time in the classroom. The pupils should speak for the rest of the time. Thirdly, the teacher should have a native-like competence in the immersion language, but s/he

should also be able to understand the pupils' first language (Buss and Laurén 1997b: 22-23.) Furthermore, an immersion teacher makes use of authentic material and different sources of input, like songs, videos, books, posters et cetera as much as possible. The textbook should not be the most important resource (Laurén 1998: 41). According to Björklund and Suni (2000: 211), the most important role of the immersion teacher is "to make the language comprehensible" to pupils. This is done by acting, using facial expressions, gestures, pictures, posters, songs and drama in the classroom.

Immersion education started in Vaasa in 1987, and unlike the Canadian model, it was multilingual from the beginning (Laurén 1998: 53). Multilingual in this setting means that besides the primary immersion language Swedish, also English was taught to the pupils in immersion teaching from its early days. English as a foreign language was in the early years introduced as late as in the fifth grade to give time to the development of the immersion language, Swedish. Later the starting age was shifted to grade three, as in Finnish schools in general, and from 1993 onwards, English has been introduced in the first grade (Björklund 2003: 5 and Björklund 2002: 26). In the early years of immersion in Vaasa, English was not taught by the immersion method (using only the target language) but by the traditional method. The use of the immersion method was initiated by the pupils themselves because they felt it would be easier to apply the immersion method they had already learned to learn other languages (Björklund 2003: 5). Nowadays, besides the third language, English, even an optional fourth language, German or French, is offered in grade 5. The method of immersion is applied to all language teaching.

The curriculum of English teaching in Keskuskoulu school states that the teaching of English should start in the first grade and continue throughout primary education. The method of teaching is immersion and the target language is thus the medium of instruction. According to the curriculum, English teaching is based on ample input and the focus of assessment is on oral language proficiency. In accordance with the principles of the immersion method, the curriculum of Keskuskoulu school only lists a few very basic grammatical structures that the pupils need to learn in each grade, such as the genitive case, the imperative form and question forming in the fourth grade, or

ordinal numbers and the comparison of adjectives in the sixth grade. This is considerably less than in the curricula of the two other schools. (Curriculum of Keskuskoulu school 1994.)

The class observations in Keskuskoulu school took place on March 26th (lesson 1), on March 31st (lesson 2) and on April 7th (lesson 3) in 2003. According to the findings made during the observation of the immersion group, a typical lesson seems to include more work in groups or pairs than work lead by the teacher and also a great deal of conversation and communication which mainly takes place in English. All the observed lessons started with the checking of the homework. In one of the observed lessons, the pupils had written an essay describing what they had done on the previous day (lesson 1). The teacher used English all the time, while the pupils spoke mostly English, but could occasionally slip in Finnish or Swedish words in the middle of a sentence if they could not recall the English expressions. For instance, when the teacher asked a girl to read her homework to the other pupils, she said “ I have so *lyhyt* (short)”, using English as expected, but failing to recall the word ‘short’ she replaced it with the Finnish word ‘lyhyt’ (lesson 1). Another example was a boy, who was asked what he had for breakfast that morning and said “I drank some *mjölk* (milk)”, again using English as much as possible, but when he could not recall the English word ‘milk’, he replaced it with the Swedish word ‘mjölk’ (lesson 1). The examples support the earlier findings that the immersion pupils will try to communicate in the foreign language, and not recalling a single word will not stop them from doing so.

In all the observed lessons, the homework was from the exercise book. It was often checked in pairs, the pupils reading their work to each other and asking the teacher for advice if any problems should arise. Sometimes, especially if the homework was relatively simple, the teacher would only ask if anybody had problems doing the exercise. Possible problems would then be discussed together. In all cases, it was the responsibility of the pupils to inform the teacher if they had not been able to do their homework.

In lesson 2, a particular chapter in the textbook was listened to on the tape with the pupils sitting in a circle without their textbooks and thus without seeing the text. The content of the text was then discussed in English, and the discussion proceeded to include matters related to the subject. The teacher asked the meaning of two important words in Finnish, and the pupils were also asked to explain the same concepts in English. This was the only occasion when translation took place during the observed classes. All the observed lessons included exercises where the pupils had to talk in English either in pairs or in groups. The pupils used Finnish in communicating with each other outside of the exercises, only when doing the exercises or talking with the teacher, the language was mostly English.

3.2 Traditional teaching

The problem in defining the traditional teaching method is that it is not a single teaching method as such. By traditional teaching in the present study I refer to the method which is used in most Finnish schools. The term ‘traditional teaching’ is not commonly used either, often there is no term for this method at all, and it may just be called ‘language teaching’. The teaching method is specified usually only if a method other than this is used. A case in point would be ‘immersion method’ or ‘content-oriented teaching’, or ‘language showering’. The term traditional teaching will be used in this study to separate it from the other two methods.

Traditional teaching includes elements from several language-teaching methods, and teachers modify their own teaching by adopting elements from other methods. There are, however, certain characteristics that describe traditional teaching. Firstly, the roots of traditional teaching lie in the grammar-translation method, which involves memorizing native-language equivalents for target language words. For example, when teaching English, the word lists in the books are always in English and in Finnish. Secondly, vocabulary and grammar are emphasized over both speaking and listening. Thirdly, grammar is taught explicitly and deductively, that is, the rule is introduced first and exercises, which illustrate the use of the rule, follow. (Larsen-Freeman 2000: 18-

20.) Grammar is taught in Finnish, and the grammatical details are introduced in separate rules. That is, the pupils may learn a new grammatical structure before they have seen the structure in use in the textbook or in an exercise. Often, the rule is learned first and then the new structure practiced with exercises. Grammatical terms in mother tongue are used in teaching. There is relatively little student initiative and student-student interaction, and the teaching is rather teacher-centred. Furthermore, the pupils' native language is frequently used in the classroom for translation and explanations. Structures and grammatical rules are emphasized over communication. The traditional language teaching has been commonly criticized for the fact that pupils leaving school have a good theoretical knowledge of the target language, but do not seem to be able to use the language in practice (see for instance Björklund and Suni 2000: 199).

The curriculum of Länsimetsä school lists a positive attitude and an interest towards the target language and culture as the aims of its English instruction. Also, the pupils should gain basic language skills, both oral and written, and also acquire basic grammatical knowledge during their primary school years. Work in pairs and groups, games and songs as well as independent and teacher-lead work are listed as methods of teaching. The curriculum describes the topics of which the pupils should gain knowledge and vocabulary, and these include for instance family, school, greeting, travelling, hobbies, and occupations. These topics are not meant to be learned in a particular year; instead they are treated as themes that come up every year. The curriculum also lists approximately ten grammatical rules to be learned each year. Grammar becomes more complicated each year as new concepts to be learned are based on what has been learned previously. For instance, the grammatical structures to be learned in the sixth grade are the genitive, comparison of adjectives, adverbs, indefinite pronouns, some prepositions and the past, perfect and future tenses. (Curriculum of Länsimetsä school 2000.)

The class observations in Länsimetsä school took place in 25th of March (lesson 1), and in 1st and 8th of April. The observed lessons in traditional teaching were more closely focused on the textbook than in the other two methods. The pupils not only had exercises from their exercise books as homework, but they also had to memorize word

lists from a certain chapter. All lessons started with the teacher giving a word in Finnish and the pupils would provide the English equivalent. The exercises were checked together, with the pupils answering in turns (lessons 1 and 2), or in pairs (lesson 3). In either case, the teacher would go around the classroom and check that everybody had done their homework. In all lessons, the teacher spoke English most of the time, switching to Finnish only when pupils had difficulties understanding the instructions or when talking about grammar. The pupils, on the other hand, would only speak English when the exercises were checked and they had to read aloud the answers they had written at home. At all other times, with only one exception, the pupils spoke Finnish, even when the teacher asked them questions in English.

In lesson 1, the chapter in the textbook was first listened to on the tape. The pupils were sitting at their desks, with their textbooks and the word lists in front of them. The pupils then read the text aloud in pairs in English, practicing pronunciation. Difficult words were written on the blackboard and pronunciation was practiced together with the teacher. The whole chapter was not translated, but the pupils were asked if they had any problems understanding it. Later on, the teacher showed a list of sentences from the chapter in Finnish on the overhead projector, and the pupils were to look for the English equivalents and write them down in their notebooks.

Grammar was taught in Finnish. Lesson 3 concentrated on verb tenses. The precise grammatical terms were given in Finnish. Exercises that focussed on verb tenses were done later and they were checked together immediately after completing the exercise. Sentences in the grammar exercises were translated in Finnish, even though it would have been possible to complete a sentence with a correct tense even without understanding every word.

3.3 Content-oriented teaching

Content-oriented teaching attempts to combine both implicit and explicit learning. Implicit learning derives from content teaching in a foreign language which develops

communication skills and the innate, instinctive knowledge of language, while explicit learning derives from providing more formal language instruction. In an optimal content and language integrated learning environment, the “acquirers are exposed to authentic but comprehensible language input (Järvinen 1999: 29).” Usually this means that one or several subjects in the curriculum, for instance mathematics or history, are taught in the foreign language. The idea is that the pupils would concentrate on learning the subject matter and the language skills would come as a bonus. As a language teaching method, it resembles immersion teaching in that the idea is to learn language by being exposed to the language as much as possible and using the language for communication rather than learning separate rules.

In Suvilahti school, however, no academic subjects were taught in English. Rather, the content and language were integrated in teaching arts and other creative subjects in English along with the traditional English teaching, aiming at getting the best of two worlds. The pupils had two kinds of English lessons, teaching in English and teaching of English. The teachers in Suvilahti school use the definitions ‘teaching in English’ and ‘formal English’. Teaching in English could include music, drawing, playing or other forms of art and recreation. Also, some themes of regular academic subjects could additionally be taught in the English lessons for revision and for the pupils to learn the vocabulary of a particular topic in English. In such integration, the principles of teaching in English resembled the principles of immersion in that the language used in these lessons was English and it was used for all communication. The focus in teaching in English was on the task at hand rather than the language. Also, the pupils were encouraged to use English as much as possible. In addition to the lessons taught in English the pupils in Suvilahti school had teaching of English, which followed very much the same principles as traditional teaching. In the lessons of teaching of English, both English and Finnish were used. The focus was on the language, the exercises aimed at learning specific structures in English.

The curriculum concerning the teaching of and in English in Suvilahti school is very elaborate and detailed. It is written both in Finnish and in English and provides background and justification for the large amount of English instruction. The aim is to

educate fluent communicators and language users, which is achieved by extra hours of teaching in English. The first two years of teaching in English in Suvilahti school are dedicated to familiarizing the young pupils with the English language before they start with the teaching of English in the third grade. Even after the teaching of English begins, also teaching in English continues. The teaching in English integrates topics with other subjects, such as geography or biology. For instance, when body parts are introduced in biology lessons, the same theme continues in the teaching in English lessons, with for instance songs or games including the names of body parts. The themes for each year are listed in the curriculum for teaching in English. As some of the teaching takes place in a foreign language, the curriculum also mentions ways of facilitating understanding, such as pictures, concrete objects, facial expressions, gestures and songs, games and rhymes. In this respect content teaching resembles immersion teaching. The curriculum for the teaching of English lists both topics and the grammatical structures, in the same way as the curriculum of Länsimetsä school (TG). For instance, the grammatical patterns listed for the sixth grade include the past tense, comparison of adjectives, genitive, adverbs and question formation (Curriculum of Suvilahti school 1997).

The class observations in Suvilahti school took place on the 2nd (lessons 1 and 2), 10th (lesson 3) and 11th (lesson 4) of April, 2003. Lessons 2 and 3 were teaching in English and lessons 1 and 4 were teaching of English. The observed teaching of English lessons resembled the traditional lessons in Länsimetsä school with the exceptions that the pupils in Suvilahti had more independent work and spoke more English than the pupils in the traditional teaching environment. The theme in the observed lessons was Australia and lesson 1 started with the pupils telling in English what they already knew about Australia. The teacher provided further information and helped the pupils to form an idea about the subject. The chapter on Australia in the textbook was then listened to on the tape with the pupils having the text in front of them, and this was followed by the teacher's questions about the contents in English. The chapter was then read aloud in English in pairs. Finally the teacher showed short sentences and keywords from the chapter in Finnish on the overhead projector, and the pupils had to form English

sentences of them. Another chapter in the textbook (lesson 4) was translated into Finnish in full.

Listening exercises were included in both observed teaching of English lessons and the teacher drew the pupils' attention to the dialect or accent that was used in the exercise, to give the pupils an idea of the different dialects of English. A substantial number of exercises from the exercise book were included in the lessons. The exercises were completed either independently or in pairs, and they were checked either all together or in pairs.

The teacher spoke English almost all of the time in the teaching of English lessons, switching into Finnish only to translate a word or a phrase or when teaching grammar. Translation was used as a method of teaching in the observed lessons; both the pupils and the teacher used translation for checking comprehension. The pupils spoke mostly English to the teacher, especially when the teacher was asking them questions in English. Also, when doing oral exercises the pupils spoke English. At other times the pupils spoke Finnish with each other with few exceptions. Grammar was always taught in Finnish, using the Finnish grammatical terms as in traditional teaching.

In the lessons taught in English, the class drew a koala as an example of Australian fauna (lesson 2). The instructions were given in English and in the rest of the lesson the pupils talked in a leisurely way with each other and the teacher both in Finnish and in English as they were drawing. The pupils had special notebooks for the lessons taught in English and on lesson 3 they wrote down names of animals of Australia. The teacher again started with what the pupils already knew and moved on to introduce some new vocabulary. The words were written on the blackboard and the pupils copied them in their notebooks, illustrating the word list with drawings. The word lists were only written in English, but the pupils could write a Finnish translation next to the word, if they wanted to. The teacher spoke English all the time and the pupils used both languages. Peculiarly, the pupils spoke less English in these lessons than in the teaching of English lessons. This may have been due to the fact that there were no formal exercises in English, but rather the atmosphere was very leisurely, which may have

encouraged the use of Finnish. However, the only instance when a pupil spontaneously spoke English to another pupil occurred in the lessons taught in English, when a boy said to another “Iko, don’t play with your scissors, please” (lesson 3).

3.4 Comparison of the teaching methods

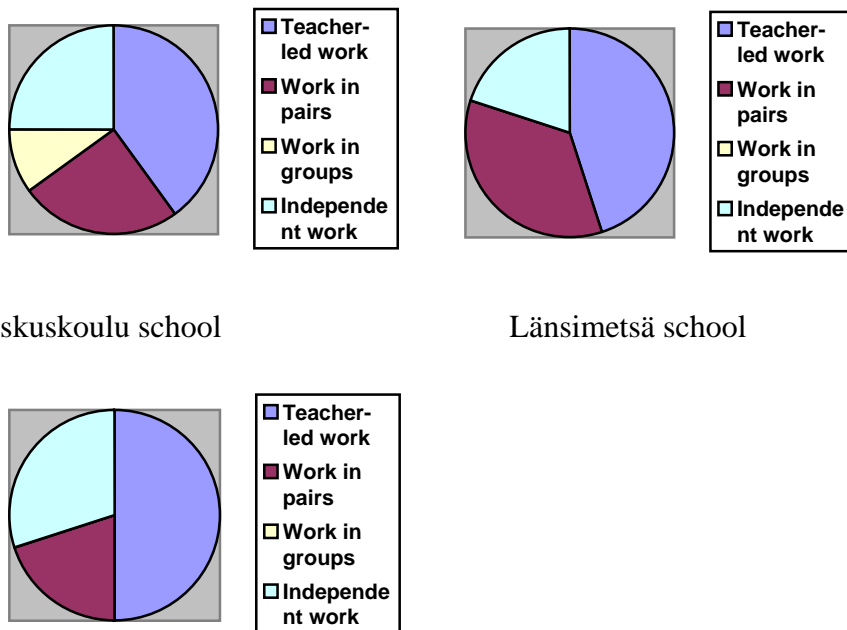
Besides the degree of the target language used in the classroom, also the starting age and the number of weekly hours varied in the three schools. The pupils in Keskuskoulu school had started English as their third language (the other ones being Finnish, their mother tongue, and Swedish, the immersion language) in the first grade. For the first two years they had been taught English one hour a week. From the third grade onwards they had had two English hours weekly. The language of instruction had been English. The pupils in Länsimetsä school had started English as their first foreign language in the third grade, having had two weekly hours throughout the primary school. Both Finnish and English had been used as the languages of instruction. In Suvilahti school, the pupils had started English as the first foreign language in the first grade. For the first two years they had had two hours of teaching in English (usually arts, crafts, music and games) and in addition to this, two weekly hours of teaching of English from grade three onwards. This means that from grade three onwards, the pupils in CG had had double the amount of weekly English lessons compared with the other two groups. In content-oriented teaching the language of instruction was English only, but in teaching of English lessons both Finnish and English was used.

The fact that the numbers of weekly lessons of English were different most probably had its effect on the findings of the present study. However, as the objective was to compare teaching methods, the different number of weekly hours was considered to be an integral part of the methods.

Considering the physical teaching arrangements, none of the three schools had a special language classroom but rather the English lessons took place in ordinary classrooms where also other subjects than English were taught. The primary teaching material was

the same in all three schools. The pupils have a textbook and an exercise book (*Yes Friends*), where the new words in each chapter are presented in the exercise book with their Finnish equivalents. This does not comply with the principles of the immersion method, where the idea is to use the target language only (Buss and Laurén 1997b: 22). Consequently, the teacher in Keskuskoulu school ignored the translations during the lessons, and the pupils only used the translations when they studied the chapters at home. In Suvilahti and Länsimetsä schools the word lists were in active use. The pupils learned the words with their translations by heart, and every now and then the learning was tested with a word test. Furthermore, the instructions in the exercise books were in Finnish. Also, grammatical terms were given in Finnish in the exercise books. The pupils of the immersion class in Keskuskoulu school thus had the Finnish translation in front of them when the teacher taught grammar in English. The immersion method teacher therefore worked in concord of the principles of immersion, even though the teaching material might have been a limiting factor. In Suvilahti and Länsimetsä schools, grammar was always taught in Finnish in compliance with the principles of the traditional teaching method.

During the class observations, the main objective was to notice differences in the praxis of the teaching methods. The different exercise types used by the teachers during the observed lessons were calculated. The proportions of teacher-led work, pair work, group work and independent work show interesting differences (see Figure 1.) In Keskuskoulu school, the exercises were led by the teacher 40% of the time, work in pairs and independent work each constituted 25% of the time used for exercises and groupwork 10% of the time. The proportion of teacher-led time should only constitute 20% of the classroom-time according to the basic principles of immersion (see section 3.1 of this paper), so the observation showed a marked increase from this. In the observed lessons in Länsimetsä school the teacher led the action in 45% of the exercises. The pupils worked in pairs for 35% of time and independently for 20% of the time. No work in groups was included in the observed lessons. In the observed lessons in Suvilahti school, the teacher led the exercises in 50% of the cases, the class worked in pairs in 20% of the exercises and independently in 30% of the exercises. No work in groups was included in the observed lessons.

Figure 1. Exercise types in the lessons.

Suvilahti school

Thus in randomly selected lessons, the teacher in Keskuskoulu school made the most use of variable exercise types. The pupils worked in groups, pairs or independently for most of the lesson time. She also had the least amount of teacher-led work in her lessons, which followed the principles of immersion. The teacher in Länsimetsä school kept the pupils at work for more than half of the time, either independently or in pairs, and the time reserved for instructions was less than half of the time. The teacher in Suvilahti school had the largest amount of teacher-led work in her lessons and also the least amount of pair work and no group work. This was in contrast with the principles of the content-oriented teaching. One reason for such a sharp difference between the groups may be that the few observed lessons do not give a full picture of everything that goes on in the classroom.

4 LEXICAL ANALYSIS

In this section the theoretical framework for the analysis of the results produced by different groups will be presented. The written texts which were analysed in the present study were taken to differ in terms of lexical density, the length of the texts and the types of errors. An error analysis was made of the written texts by classifying the errors into grammatical, orthographic and vocabulary errors and counting their relative proportions in the texts. In what follows these will be discussed in more detail.

4.1 Lexical density

In this study, Halliday's notion of lexical density was be used in the analysis of the written texts produced by the pupils. That is, how densely the information is packed in a sentence. To be able to determine the density, words are divided into two categories: the words are either 'grammatical' words (Halliday also calls them 'function' words) or 'lexical' words ('content' words). Grammatical words include determiners, pronouns, most prepositions, conjunctions, some classes of adverb, and finite verbs. They belong to a closed system in a language, which means that the amount of items in a certain class is determined and one cannot add any items to this class. Lexical words, then, belong to an open set which is indefinite, and where new words are constantly added. Lexical density is determined by counting the ratio of lexical and grammatical words in a sentence. Lexical density is then expressed as the proportion of the lexical items to the total number of words in a sentence (Halliday 1989: 61-64.)

In general, written language is more densely packed with information than spoken language. Halliday (1989: 61-62) illustrates this difference with the following example: "Investment in a rail facility implies a long-term commitment". This sentence in a written text includes seven lexical words: 'investment', 'rail', 'facility', 'implies', 'long', 'term', 'commitment' and only three grammatical words: 'in', 'a', 'a'. The total number of words in this sentence is ten, which gives it a lexical density of 0,7. The same sentence in a spoken form will give quite different proportions: "If you invest in a rail facility, this implies that you are going to be committed for a long term". In the

spoken language example, all the seven lexical items of the first example are present, but the number of grammatical items is larger, making the total number of words in the sentence 20. This gives the sentence a lexical density of 0,35, which is exactly a half of the first sentence.

Usually, the larger the lexical density is, the more densely the information is packed and, hence, the more elaborate the language is considered to be. However, Halliday's notion of lexical density is derived from the speech of native speakers of English. In the present study, the writers of the texts are learners of English who will probably not acquire lexical densities similar to written English produced by native speakers. Rather the proportion of lexical items in the texts of language learners is expected to fall closer to the average native speech, not writing of native speakers. In the study of Lainas and Nurmi (2002: 59), the lexical density in the spoken language of immersion pupils was 0,38 on average.

4.2 Error analysis

Error analysis refers to a method in which errors in pupils' production of language, either written or spoken, are categorized and analyzed. This will give the teacher or researcher an insight into the language learning stage at which the pupil is operating at that moment, for instance by revealing influence from the mother tongue or a consistent error in a grammar. Once determined, the teacher can draw the pupils' attention to the points, or the researcher might draw conclusions as to where the problematic points are or what seems to have been learned well. There are many ways in which the sources of error and the error types can be categorized. In this research the categorization by Brown (1994) is applied. In the following, error analysis is discussed in more detail, in particular the categorization applied in the present study. Next, the division used in this research will be discussed. Finally, some of the challenges of error analysis are introduced.

In literature (Brown 1994, Baker 1997), error analysis and error correction seem to give rise to a mixed response. Its value in giving teachers and researchers important information is acknowledged, but at the same time the authors warn about paying too much attention to correction, which might even hinder learning the correct usage. Baker, for instance, suggests that “errors are a usual and important part of the language learning process”... “not a symptom of failure” but also discourages teachers from over-correcting learners’ mistakes (1997: 336). Brown (1994: 205-206), likewise, maintains that making errors is inevitable in the process of language acquisition, to the point that it “will even impede that process if they do not commit errors (1994: 205)”. He recommends a careful analysis of learners’ mistakes, as they possibly hold in them “some of the keys to the understanding of the process of second language acquisition (1994: 205)”. Nevertheless, he points out later that anyone observing and analysing the learners’ errors will have to “beware of placing too much attention on errors and not lose sight of the value of positive reinforcement of clear, free communication (1994: 206)”.

Error analysis aims at tracing the origin of the errors. Knowing where a certain incorrect form is coming from will help in teaching and learning the correct form. According to Brown (1994: 213-215), errors can be traced to interlingual interference, with transfer from the mother tongue, as it is the “only linguistic system [...] upon which the learner can draw (1994: 213)”. In learner language, there may also be interlingual interference from other previously learned languages. At the first stages of learning a language, interlingual interference is predominant, but once the learners begin to acquire the system of the new language, there will be more and more intralingual interference, which means that the learner can generalize rules and apply a learned rule to an unfamiliar word. This kind of interference is positive. The intralingual interference may also be negative, as in the case of over-generalization, which means that a learned rule is applied incorrectly, for instance using the past tense ‘-ed’ with ‘go’; “He goed” (1994: 214). According to Brown (1994: 206), the errors may also be contextual, psycholinguistic or a result of a number of affective variables.

In error analysis, the errors in a given corpus are identified after which they may be categorized in different ways. Brown (1994: 210-211) introduces three possible categorizations, of which one has been applied in the present study. For example, in an addition, something incorrect is added, for instance an extra apostrophe in 'I wan't' (TG/B7)¹. In an omission, something relevant is left out, for instance the letter 'h' in 'tree' (e.g. IG/G2, IG/B4) instead of 'three'. In a substitution, a correct word is replaced with a wrong one, for instance 'big mother' (TG/B10, CG/B9) for 'grandmother'; this category often includes errors resulting from interlingual transfer. In an ordering, word order is confused, for instance, 'where you are' (CG/B5) instead of the question 'where are you'; again, often a result of interlingual transfer.

According to Brown (1994: 210-211), errors could also be divided into shortcomings in orthography, lexicon, grammar and discourse. Orthographical errors would be errors in spelling, and either additions or omissions or something else, for instance when 'with' is spelled 'whit' (e.g. TG/G11, IG/G9). Shortcomings in lexicon would include errors resulting from interlingual transfer as well as intralingual vocabulary errors, for instance 'big mother' (TG/B10) instead of 'grandmother'. Grammatical errors, for instance 'she want' (e.g. IG/G13) instead of 'she wants' would be a separate category, whereas in the previous model grammatical errors might be found in any of the categories. Discourse errors might be difficult to identify as they could be seen to belong to another category as well, for instance 'grandma called and he wants to see you' (TG/B13) may be viewed as a discourse error, but also as an error in vocabulary resulting from transfer from Finnish, as Finnish does not identify gender in third person singular pronoun. Errors could also be identified as either global or local or in dimensions viewed in relation to the domain and extent. A local error does not prevent the message getting through, for instance 'o'closck' (CG/G2) whereas a global error hinders communication, for instance 'I'm is two brothers' (TG/G2) and may even make it impossible.

¹ In all examples from the test, the codes will be used to refer to the individual pupils. The code includes the teaching group, gender (B for boy and G for girl) and the number of the pupil. The coded list of examples used will be found in Appendix 2.

In the present study, the errors made by the pupils were categorized into those of orthography, vocabulary and grammar. This division was chosen because this research aims at evaluating in particular the learning of grammar and vocabulary, and this model separated these two, whereas in the other models they may be found in any of the categories. For instance, the spelling error in ‘whit’ instead of ‘with’ is seen as an orthographical error and not an omission, an addition nor a substitution. The last model introduced above where the errors are seen as either global or local also fails to separate grammatical and vocabulary errors. To sum up, the division of errors into orthography, vocabulary and grammar, although a rough one, is quite easy to apply. Also, it helps in determining which group had the most influence from mother tongue or the second language. From the original model, discourse was left out as a category because many errors in discourse could also be judged to belong to some other group. Errors in discourse can in the present study, therefore, be found under the other categories.

One of the challenges in error analysis emerges from the fact that all learners make errors. They are crucial steps towards learning a language. For this reason Brown (1994: 205-206) makes an initial division between an ‘error’ and a ‘mistake’. By a mistake he refers to a “lapse” where the learner is unable for some reason to use a known system correctly. Mistakes also occur in native speech, and they can be hesitations, ungrammaticalities and other performance lapses. An error is a noticeable deviation from the correct usage and reflects the stage the language learner is at. However, even with this division, it is sometimes difficult to tell the difference between a mistake and an error, and Brown introduces an example where a learner uses the correct form of a modal verb at one point but at another occasion utters a faulty form; is the incorrect form an error or is the correct form a lucky mistake. The solution Brown suggests is to extend the analysis and use frequency to determine whether an individual incorrectness should be regarded as an error or a mistake.

For this study, the material was obtained during a single lesson with no further contact. This ruled out the opportunity of later eliciting more writing in cases of uncertainty. In this corpus, there may thus also be lucky guesses where the pupil has got the word right by chance, and which are not counted as errors as well as unlucky mistakes, which are

counted as errors. To minimize regarding mistakes as errors the following rule was followed: If a pupil had written a word both correctly and incorrectly, the lapses were always viewed as mistakes in favour of the pupil and not as errors.

Another challenge to the error analysis is the so-called avoidance strategy. A learner may avoid a particular problematic word or structure and may be incorrectly assumed to have no problem in using it (Brown 1994: 206). In the scope of this research, it is not possible to determine cases of avoidance strategy as such, and such cases are likely to remain unnoticed in a single occasion of language production. On the other hand, being able to avoid a problematic structure in writing and replace it with a correct structure also requires a great deal of linguistic ability.

Lexical density and the categorization of errors are therefore useful tools for measuring a pupil's language proficiency and as in the present study, to compare the results from the use of different teaching methods.

5 ANALYSIS AND DISCUSSION OF THE FINDINGS

The present study aimed at finding out whether the teaching method affects the language skills of sixth grade pupils. The teaching methods differed in the degree to which English was used in the classroom. The material for this study was collected by carrying out a test for three sixth grades with three different teaching methods; immersion teaching, content-oriented teaching and traditional teaching. The test was designed to test pupil performance in three areas: vocabulary, grammar and written production. The analysis revealed that there indeed were differences between the groups, most often not in favour of the traditional teaching group. In what follows, the findings of the analysis will be given. To determine differences between the groups, the test replies were analysed quantitatively in terms of grading the exam papers with points. First, the quantitative grading of the vocabulary, grammar and writing tests will be compared, with average results and standard deviations. This is followed by qualitative observations of the vocabulary and grammar sections, with examples clarifying the observations. Second, the two writing exercises will be analysed in terms of counting the length of the texts and the lexical density in each text as well as an error analysis of the grammatical, spelling and vocabulary errors in the texts. Examples of the error types with qualitative discussion will be given to clarify the analysis.

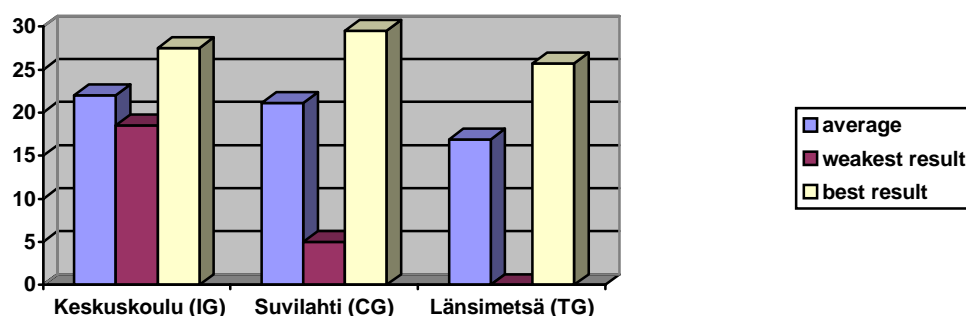
5.1 Vocabulary test

The vocabulary test consisted of three exercises, in which the pupils had to provide a suitable word according to the given instructions. In the first exercise, the pupils were expected to provide a word that suits a given definition, for instance “It’s made of wood”², “It’s something you eat with” or “It’s a language”. In the second exercise, the pupils had to provide the opposite of a given word, for instance “west”, “near”, “remember” or “after”. In the third exercise the pupils were expected to produce three to

² Examples from the tests are differentiated from the replies of the pupils with double quotation marks, and the replies of the pupils are marked with single quotation marks.

five words related to a certain topic, for instance “summer words”, “question words” or “nature words” (see Appendix 1. for more details). No alternatives were provided. Maximum points for this exercise was 30 points. The pupils got one point for a reply which both suited the definition and was correctly spelled. In this exercise, also half points were granted in cases of misspelled words, for instance ‘kuitar’ (TG/B10) as a reply to the definition “It’s a musical instrument”. Also, there were replies where the pupil had understood the definition but the reply would only partially suit the definition, as in replying ‘t-shirt’ (TG/B8) for the definition “It’s something brown”. In these cases, half a point was granted.

The overall results can be seen in Figure 2. As was expected, IG (immersion group) performed best in the vocabulary exercise. It had an average of 22 points out of 30, with a standard deviation of 2,9 points from the average result. The best result in IG was 27,5 points out of 30 and the weakest 18,5 points out of 30, which means that all the results fell within 9 points. This suggests that the group is very homogeneous. CG (content-oriented group) was the next best group, with an average of 21,1 points out of 30 and a standard deviation of 6,5 points from the average. CG had the best single result in the vocabulary exercise, 29,5 points out of 30, but their weakest result was as low as 5 points out of 30. TG (traditional teaching group) was the weakest, with an average of 16,9 points out of 30 and a standard deviation of 7,3. The best result in TG was 25,75 points and the weakest 0 points. As Figure 2. shows, the best results in the three groups are not very far apart, but the difference between the best and the weakest result and the standard deviation is considerably greater in CG and in TG than it is in IG. The average results of IG and CG were close to each other, whereas there is a greater difference to the average of the TG.

Figure 2. The findings of the vocabulary test.

It has been suggested that for immersion pupils, communication is the ultimate goal and that they may even take risks at the cost of correctness to meet their communicative goal (Björklund 2003: 11). This is supported by the fact that in the vocabulary section, immersion pupils (IG) left the fewest blanks in their answers. They did not appear worried of writing a word they knew was not correctly spelled as it would still convey the message, whereas pupils in the traditional teaching group (TG) did not seem to mind leaving a space totally blank if they did not know the correct word. In the vocabulary section, IG had a total of 30 blank spaces, which makes an average of 1,4 blanks per pupil, whereas TG had a total of 120 blank spaces, which means 4,8 blanks per pupil in average. CG was close to IG with a total of 28 blanks, 1,8 blanks per pupil.

The differences in the correct replies to the vocabulary test were not great. The second and third exercise hardly brought out any differences at all. In the first exercise the pupils wrote words according to a given definition. This exercise brought out more variation in the answers than the other two exercises. The following definitions from the test are used as examples: “It’s a sport for two”, “It’s something brown” and “It’s something you eat with”. Every effort was made in construction of the definitions to make them as unambiguous as possible.

Misconceptions occurred however. Further, there were both definitions with only a few words fitting the description and definitions with a vast amount of possible correct replies. A sport for two is a definition with only a few possible replies. ‘Tennis’ was the

word most pupils could recall. In IG and CG, three fourths answered tennis; in IG, half of the pupils suggested 'tennis' (for instance IG/G1, IG/G6, IG/G8, IG/B2 and IG/B5). Other suggested answers in the IG included 'golf' (IG/G12), 'chess' (IG/B7), 'squash' (IG/G9), 'dancing' (IG/B6), 'fighting' (IG/G13) and 'badminton' (IG/G7). Pupils in the CG suggested 'chess' (CG/G2), 'badminton' (CG/B7 and CG/B4) and 'ice hockey' (CG/B8), and in the TG, 'ice hockey' (TG/B13), 'running' TG/G12), 'football' (TG/G2, TG/B10), 'cycling' (TG/B9), 'basketball' (TG/G1), 'ball' (TG/B8), 'curling' (TG/B6) and 'skate deck' (TG/B7) were suggested. On the basis of the replies, it seems that the pupils in IG and CG were more often correct in their replies. More than two people can, of course, take part in some sports, such as dancing and golf (these replies were granted half a point each), and it may be argued whether fighting and chess could be counted as sports. Nevertheless, the variation was greatest in TG, and apart from tennis, no answers were found which would have fulfilled the requirement of being a sport for two.

An example of a definition with a number of possible replies is "It's something brown" (Appendix 1) Apart from a few blanks in the TG, all pupils understood what this definition was referring to, and there were no qualitative differences between the groups. The following words are examples of the pupils' answers: 'chocolate' (IG/G12), 'monkey' (TG/B9), 'bear' (CG/B13, TG/G7, TG/B13), 'teddy bear' (IG/G5, TG/G11), 'Coca-cola' (TG/G10), 'mud' (TG/B3), 'sand' (TG/B4) and 'kangaroo' (CG/B11). In all groups, also items which could be of any colour were suggested, such as 'chair' (IG/G9), 'table' (IG/B3), 'dog' (TG/G8), 'horse' (CG/G3), 'shoe' (TG/B2), 'hair' (IG/B8, TG/G4, TG/B10) and 't-shirt' (TG/B8). These replies got half a point each.

The definition "It's something you eat with" (Appendix 1) was misunderstood most often. Names of cutlery were the intended outcome. This definition proved to be easiest for the immersion group, as more than half of them found the right word. 'Knife' (for instance IG/B5), 'spoon' (e.g. IG/B2) and 'fork' (e.g. IG/B3) were all included in their answers. One pupil suggested 'sed' (IG/G10), which most probably comes from the Swedish word for spoon ('sked') and another suggested 'hands' (IG/B4). They both got half a point. In the CG, somewhat less than a fourth found the right word, with 'knife' (e.g. CG/B2), 'spoon' (e.g. CG/G1) and 'fork' (e.g. CG/B1) all appearing in the

answers. In the TG, a mere three pupils were able to recall either ‘knife’ (TG/B3, TG/B6) or ‘fork’ (TG/B5). Twelve pupils from all groups had clearly misunderstood the definition as being something one eats with food, and hence suggested ‘vegetables’ (IG/G12) ‘salad’ (IG/G7, TG/B2), ‘ketchup’ (CG/B10), ‘milk’ (CG/B13, CG/B7, TG/G4), ‘water’ (TG/G5, TG/G1) or ‘bread’ (CG/B13, TG/G10, TG/G6). Thirteen pupils had at least understood that the definition had to do with food and suggested ‘food’ (CG/B4), ‘hamburger’ (IG/G3, CG/B12, TG/G7, TG/B11), ‘ice cream’ (CG/B14, TG/G9), ‘cake’ (IG/G2), ‘pizza’ (CG/B15, CG/B3, TG/B12) or ‘sandwich’ (IG/G4 and IG/B1). No points were granted for the misunderstood replies.

An interesting detail in the vocabulary exercises was that in the content-oriented group, words related to Australia appeared eight times, both in reply to the definition “It’s something brown” and “Write three to five nature words” in the third exercise. The examples included such as ‘kangaroo’ (CG/B11), ‘koala’ (CG/B8 and CG/B2), ‘crocodile’ (CG/B9) and ‘coral reef’ (CG/B8, CG/B5, CG/B4 and CG/B1). Australia was the topic of one of the observed lessons, and obviously the vocabulary related to Australia was in fresh memory. The other groups also had a chapter on Australia in their textbooks, but no traces of it could be seen in the answers of this test. The immersion and content-oriented groups gained better results in vocabulary exercises compared to the traditional group. This could be seen in both the numerical assessment of the test as well as in the fewer number of blanks left, that is, not replying at all, by the immersion and content-oriented pupils.

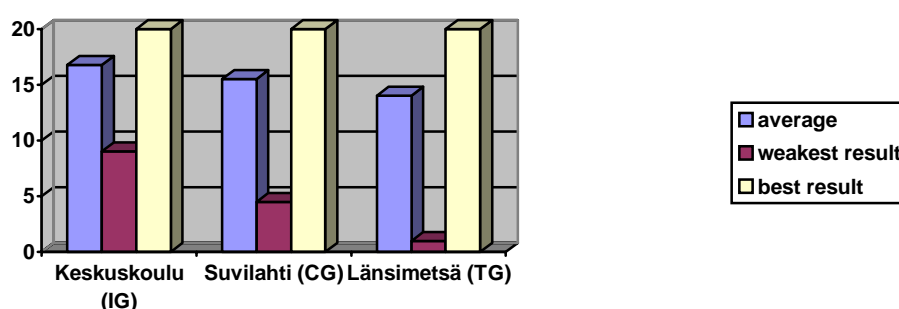
5.2 Grammar test

The grammar part of the test consisted of two exercises (see Appendix 1 for full details). In the first one the pupils were given four alternatives from which they had to choose the right word to fill in a gap in a sentence. The first exercise concentrated on three main points: third person ‘-s’, verb tenses and concord, that is, the subject and the predicate must agree in number. An example of this is the following sentence from the test: “My friends ____ not very interested in music. (is, have, are, do)”. In the second

exercise the pupils were given an adjective or the infinite form of a verb, and they had to provide the right form of the word to fill in a gap in a sentence. In addition to the main points in the first exercise, also comparing adjectives were covered by the latter exercise, for instance: “I think bananas are _____ (good) than apples”.

In their curricula, all three schools mentioned the comparison of adjectives as a learning objective for the sixth grade, and all except Keskuskoulu school mentioned the past tense. For this reason, these two issues were chosen for the test. Concord and third person ‘-s’ are two very basic grammatical points which are both introduced in the first years of learning English, but which seem to be problematic even after several years. Unlike in the vocabulary test, in both grammar exercises either alternatives or the basic form of a word were given, so that remembering the right word was not an issue, and the pupils only had to provide the correct form of the word. This markedly diminished the number of blank spaces in the grammar section, but otherwise the pattern was the same as in the vocabulary exercises. IG had the smallest number of blanks, two, that is 0,1 blanks per pupil; CG and TG had a total of 6 and 7 blanks respectively, which averages in 0,3 blanks per pupil for both groups. Maximum points for the grammar test was 20, and the pupils were given one point for a correct reply. No half points were granted in this exercise, as the alternatives or words in basic forms were provided.

The overall results of the grammar section can be seen in Figure 3. The best pupils in all three groups gained the maximum of 20 points. Again, IG performed best. The weakest results were 9 points out of 20 for IG, 4,5 points for CG and 1 out of 20 for TG. Similarly to the vocabulary test, the immersion pupils were again the most homogeneous group, whereas in the traditional teaching group, the results spanned the entire scale. In the grammar section, IG had an average of 16,8 points, with a standard deviation of 2,7 points; CG, the next best group, had an average of 15,5 points and a standard deviation of 4,7, and in TG, the average in the grammar test was 14 points, with a standard deviation of 5,2.

Figure 3. The findings of the grammar test.

As in the vocabulary test, the immersion pupils outperformed the other groups in the grammar test, and they were also the most homogeneous group. In both CG and TG the differences within the group were considerably greater than in IG. Considering the second research question, these findings suggest that the immersion group is not at all behind the other groups in learning grammar, quite the opposite. This may imply that the immersion teaching is meeting its goals in helping the pupils gain an instinctive structural knowledge of the language even though grammar is not taught formally like in the other two methods.

There were differences between the groups, both in the quality and quantity of the errors. The qualitative observations were made from the answers to the second grammar exercise. This is because in the first exercise, the pupils only had to pick the correct alternative, whereas in the second exercise, only the basic form was given and the pupils had to provide the correct form, which resulted in more variety in the answers. The second grammar exercise concentrated on two areas: the comparison of adjectives and verb tenses. The verb tense had to be picked up from the context of a sentence. In the answers of the pupils, verb tenses seemed to be the most challenging area, in particular the use of the ‘s-’ ending in the third person singular in the present tense.

In the first grammar exercise, the pupils had to complete the following sentences which related to adjectives: “Sean is the _____(tall) boy in our class” and “I think bananas are

_____ (good) than apples” (Appendix 1) There were only minor errors with the adjectives. In the immersion and content-oriented groups, there were only three incorrect adjective forms in both and 11 in the traditional teaching group. In both the IG and the CG, the few errors occurred in the latter sentence. There were spelling errors; ‘beter’ (IG/B2) and ‘peder’ (IG/B9), and faulty forms; ‘goder’ (IG/G11), ‘gooder’ (CG/B9, CG/B10 and CG/B15) and ‘goodest’ (CG/B14), and the incorrect forms suggest that the pupils had a clear idea of how the comparison of adjectives is formed. In the traditional group, there were errors in both of the sentences and some of the incorrect forms suggest that the pupil had made a wild guess without any idea of the correct form. For ‘the tallest’, the following forms were suggested; ‘taller’ (TG/B10, TG/G3 and TG/G12), ‘tallier’ (TG/B13), ‘told’ (TG/G7), ‘tell’ (TG/G2) and ‘talled’ (TG/B8). Instead of ‘better’, the following forms occurred; ‘bestist’ (TG/B13), ‘good’ (TG/B10), ‘gooder’ (TG/B7 and TG/G1) and ‘goodest’ (TG/G3).

All the groups had answers in which the ‘s’-ending from the third person singular was missing. In the sentence “Our teacher _____ (know) very much” (Appendix 1), the ‘s’ was missing in two cases for both IG and CG and in five cases for TG. Pupils in the first two groups did not suggest any other forms, but the following forms appeared in the answers of the TG; ‘knower’ (TG/G12), ‘knowi’ (TG/G11), ‘knowet’ (TG/G3) and ‘knowest’ (TG/B8). Another sentence provided the verb ‘have’ in brackets and the pupils had to complete the sentence by using ‘has’: “He _____ (have) got three brothers” (Appendix 1). In IG and CG, four and three pupils respectively failed to provide the correct form, whereas there were 11 faulty forms in TG. In IG, most of the wrong replies were ‘have’ (IG/G10, IG/G4, IG/G3) and one ‘haves’ (IG/G1). In CG, the incorrect replies included ‘have’ (CG/B15), ‘haves’ (CG/G2) and ‘haw’ (CG/B14). In TG, the following incorrect replies were found: ‘have’ (TG/B9, TG/G9 and TG/G10) ‘haves’ (TG/B7), ‘haven’t’ (TG/B8, TG/B10 and TG/B13), ‘were’ (TG/G2), ‘haverst’ (TG/G3), and two blanks (TG/G1 and TG/G7). All in all, the immersion group had the smallest number of errors, 28, in verb tenses. Content-oriented group was very close with 31 errors and the traditional group had a total of 69 errors in verb tenses.

The verb 'be' proved to be one of the most challenging verbs. There were two sentences with this verb: "I ____ (be) happy last Monday" and "Tim, Thomas and James ____ (be) best friends" (Appendix 1). In replying to these sentences, the pupils gave nonsensical forms in all groups. In the case of the first sentence, both IG and CG made 6 errors and TG 8. The following forms occurred in the answers instead of 'was'; 'become' (IG/G11), 'bew' (IG/G10), 'became' (IG/G2), 'bean' (IG/B2), 'been' (IG/G12) and 'be' (IG/G1) in the immersion group, 'beter' (TG/B8), 'beters' (TG/G3), 'am' (TG/G7), 'be' (TG/B10, TG/G8), 'being' (TG/B12, TG/G11) and 'behave' (TG/G12) in the traditional group and finally 'be' (CG/B15, CG/B9), 'been' (CG/B12), 'have' (CG/B10), 'are' (CG/B8), and a blank (CG/B14) in content-oriented group. In the second sentence, IG and CG had 3 erroneous forms both, and TG had 7. Instead of 'are', the immersion pupils suggested 'where' (IG/B8), 'is' (IG/G3) and 'has been' (IG/G13), the traditional teaching pupils suggested 'best' (TG/G3), 'was' (TG/B2, TG/B11, TG/G2), 'where' (TG/G1 and 'be' (TG/B10 and two papers were left blank (TG/B8 and TG/G12). The incorrect forms of the content-oriented pupils included 'bes' (CG/B15), 'beeing' (CG/B12) and 'be' (CG/B9). Some pupils in all groups replied 'were' (CG/B11, CG/B4 IG/G9, IG/B4, TG/B6) which was correct, as the tense was not specified in the sentence.

The qualitative observation supports the results of the quantitative analysis. It also reveals that not only were there fewer errors in the immersion and content-oriented groups compared to the traditional group, but the quality of the errors differed as well. Generally, pupils in the immersion and content-oriented groups seemed to be at least partially correct, and the errors were often spelling errors or forms which were close to the right form. In the traditional group, however, the errors often revealed that the pupils did not have a clear idea of the correct form, but rather made guesses. The only exception to this was the verb 'be', for which pupils from all groups suggested nonsensical forms. These findings support the earlier answer to the second research question on learning grammar. Immersion pupils gained better results in grammar both in quantitative and qualitative assessment.

5.3 Writing section

The writing section of the test consisted of two assignments. In the first one, the pupils were expected to write an imaginary message to their mother stating that their grandmother wanted to meet her at the railway station the following day at 3 o'clock in the afternoon, and that the mother should bring an umbrella with her. In the second assignment the pupils were asked to write at least seven sentences about either their hobby or a first letter to a new friend introducing themselves and their family (see Appendix 1. for full details).

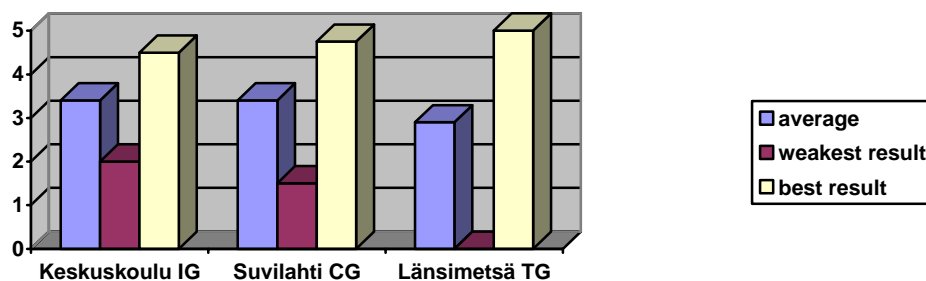
In this chapter, the results of the writing tests will be given and analysed. First, the general grades of the groups will be presented, with examples and observations to clarify the different levels of the pupils' language competence. Second, the length of the texts will be discussed, and this will be followed by the analysis of their lexical densities. The first assignment was graded from one to five points and the second assignment from one to ten points. In the assessment of the writing assignments, communication was given a priority. Therefore, errors in spelling or grammar were considered less severe than a gap in communication. In more precise terms, an error in grammar or spelling was a setback of 0,25 points, whereas a gap in communication reduced the points by 0,5. To ensure that results would be as objective as possible, each assignment was checked and graded twice, and an average of the two was used in case the results differed from each other.

5.3.1 Writing test I

In the first writing test, the pupils had to write down an imaginary message for their mother. The instructions were given in Finnish, and they listed details which should be included in the message. The instruction read as follows: "Jeff is home alone when grandmother calls. She wants to talk to Jeff's mother. As the mother is not at home, Jeff is asked to take a message. The grandmother wants to meet the mother the next day at three o'clock in the afternoon in front of the railway station. The mother should bring an umbrella with her. Write Jeff's message in English (Appendix 1)". In the numerical

assessment of this exercise, IG and CG had the same average of 3,36 points out of 5. TG had a slightly lower average of 2,86 points. Although the average result showed no difference between the two best groups, immersion pupils were again the most homogeneous group with their standard deviation of 0,7 points from the average. CG had a standard deviation of 1,1 points and TG 1,5 points. Both the best and the weakest result in the writing test were gained by a pupil in the traditional teaching group. In the traditional teaching group, there was one paper with no message; the paper was left blank (TG/G3). As can also be seen from Figure 4, the pattern of the two previous tests is not repeated in the writing test. In vocabulary and grammar tests IG outperformed the others, while CG and TG followed in that order. In the writing tests the immersion and content-oriented groups gained the same averages. It is also noteworthy that here the differences within group were greater than differences between groups, as the best and the weakest results came from the same group, the traditional teaching group.

Figure 4. The findings of writing test I.



In what follows, examples of both a weak text and a good text from each group will be given to illustrate the difference between individual pupils and groups. The following message is written by a girl in the traditional group.

- (1) Mam ring grandmam but she ring. She be interesting. (TG/G2)

Here, the text is a group of words put together. The text does not make any sense. The required vocabulary is either not found, or it is incorrectly spelled. This text got a quarter of a point out of five. A boy in the same group wrote the following message.

- (2) Grandmother wants to meet mother tomorrow afternoon at three o'clock in front of the railway station. Mother should take an umbrella with her. (TG/B3)

Here, the words are in a sensible order, and there is a clear message coming through. The vocabulary is precise and correctly spelled. All the required details are present, and the text got five out five. As becomes evident from these examples, there was a notable gap in language competence between the weak and the good texts in the traditional teaching group. The following examples are written by two boys from the content-oriented group.

- (3) Grantmothers whant see you tomorrow in station and remember your have take... [blank]. (CG/B14)

This message includes incorrect grammatical structures and misspelled words and the sentence has been left unfinished. It meets, however, its communicative purpose to some extent, unlike the text in Example 1. Some of the required words are there. This text got one and a half points out of five. In the following example, the pupil not only writes a comprehensible message, but also uses his language competence to create a frame story for the message.

- (4) Grandmother phoned when I was home alone. She had a message for you. She wants to meet you tomorrow at three o'clock in front of train station. You should take your umbrella whit you. (CG/B1)

In this example, there is only a spelling error ('whit' instead of 'with') which does not hinder the message getting through. This text was also graded worth five points.

In the immersion group, the gap between weak and good texts was noticeably narrower than in the other two groups. The following examples are written by two girls from the immersion group.

- (5) The Grandma have phonet yesterday to me and she said that she will meat you tree a clock in a realwaystation. She said also you most have a umbyrella in your bag. (IG/G12)

In this text, at least a part of the message is conveyed. The text makes sense despite its shortcomings. The influence of Swedish can be seen in it. The Finnish instruction stated that the grandmother wanted to meet the mother. Here, the writer has used 'will' instead of 'wan't, which is most probably transferred from the Swedish 'vill' ('want'). Also, 'most' was considered a transfer from the Swedish 'måste' ('must'). Furthermore, there is a probable case of avoidance in this example. The instruction stated that mother should have an umbrella with her. This pupil, perhaps failing to remember 'with', cleverly replaced it with 'you must have an umbrella in your bag'. In all, there are numerous vocabulary and orthographical errors in this text, which nevertheless do not hinder communication. This text got two and a half points out of five. In the final example, the required elements are there and the message is communicative.

- (6) Hello mum! Grandmother wants to see you tomorrow tree at klock in front of the railway station. She said that you must take umbrella with you. (IG/G4)

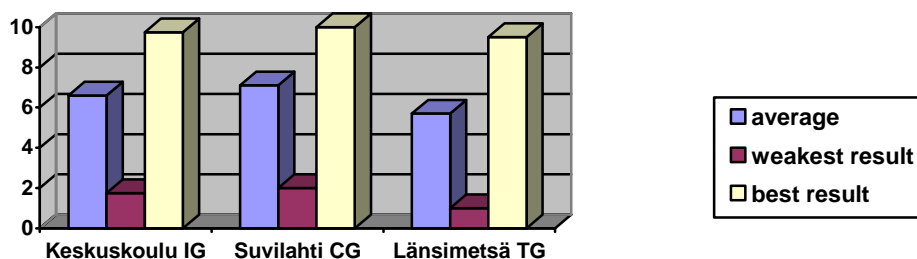
Above, the only error occurs in telling the time. There is a transfer from Swedish in the spelling of 'o'clock' (Sw. 'klocka'), 'h' is missing from 'three' and 'at' should come before the number. This text got four and a half points out of five.

It becomes evident from these examples that the immersion pupils, although they make errors in spelling and may have transfer errors from Swedish, generally manage to make their point in the foreign language. In the other two groups, in the traditional group in particular, the errors were more often grave enough to hinder the reader getting the message. In the whole corpus of the first writing exercise, there were three texts which failed to convey any comprehensible message, and one answer sheet was left blank. These were all from the traditional teaching group. This finding suggests that immersion pupils would try to make their point even at the cost of correctness, whereas pupils in traditional teaching would more easily give up their intentions and leave blank spaces or insert Finnish words in the middle of a text.

5.3.2 Writing test II

In the final exercise, the pupils had to choose from two alternatives. They could write an introductory letter to their imaginary pen friend. The instructions in Finnish read as follows: “Write an introductory letter to your new foreign pen friend. Tell about your family, friends, school, and hobbies and about things that you like or don’t like. You can make up the country of origin of your new friend and tell him/her what you know about his/her home country.” Alternatively, they could write about their hobby with the following instructions: “Write about your hobby. When did you start it, what has brought into your life, what equipment is needed and is it an expensive hobby. You can also include advice to people who think about starting this hobby.” (Appendix 1) In this test, CG outperformed the other groups with its average of 7,2 points out of 10. IG was the next best group, with an average of 6,6 points and TG the last with an average of 5,7 points out of 10. This is shown in Figure 5. The best result was gained by a pupil in the content-oriented group and the weakest result by a pupil in the traditional teaching group. Immersion group was once again the most homogeneous group with their standard deviation of 1,8 points from the average. CG and TG had standard deviations of 2,3 and 2,7 points, respectively.

Figure 5. The findings of writing test II.



In the second writing test, only a few framing sentences were given in Finnish and the topics were chosen in such a way that they would be as familiar to the pupils as possible

(see Appendix 1. for full details). This exercise proved to be very revealing of differences between the pupils. As can also be seen from Figure 5, the difference between the weakest and the best result is greater here in the immersion group than in any other exercise in the test. Here, there was a very similar pattern in the three groups: the best pupils wrote long texts and used specialized vocabulary, whereas the weakest pupils in all groups had problems with several issues. The following examples will illustrate the different levels in language ability. The errors will be further categorized and analysed in more detail at the end of this chapter.

- (7) I am [...] my famil is happy. My scool is happy and sun I' doesn't like writen. I like brive bike. My message friend is home in India. I don't home maa. My frien doesn't like English. My eyes kolor blue. (TG/B8)

This is written by a boy in the traditional teaching group and it consists of his text in total. The words are almost always misspelled and there are many grammatical errors. He has also made up words, like 'message friend' for 'pen friend'. In some instances, he has failed to convey a message, as in 'I don't home maa.' A few mistakes may be due to hurry or carelessness, as the negation 'I don't' is written 'I' doesn't at first, but then correctly later. Also, 'friend' is spelled correctly in the first instance and then 'frien' later. This text was graded with two points out of ten. Another example of a weak text is written by a girl in the immersion group.

- (8) Hello! My nime is [...]. I am 12 ears old. I have one brother his name is [...]. I live in Vaasa and my school are Keskuskoulu. (IG/G13)

This is one of the shortest texts, and it fails to meet the minimum requirement of seven sentences. It is nevertheless different from the previous example in that here the grammatical structures are mostly correct, apart from 'my school are', and also, she succeeds in conveying a message in spite of the spelling errors. Also here, a word is spelled both correctly and incorrectly ('name' and 'nime'). This text got two points out of ten.

- (9) My hobby are football. I start this five year ago. I have got a lot of friend as football. This hobby need football shoes, socks and säärisuojat. (CG/B15)

This example is also shorter than the required seven sentences. There are persevering errors with the use of singular and plural forms; ‘my hobby are’, ‘five year ago’, ‘a lot of friend’. The past tense is missing from the second sentence. The word order in the final sentence seems to be a transfer from Finnish, and the third person ‘-s’ ending is missing from ‘need’. Also, one of the few cases of Finnish words in the English text is found here. This text got two and a half points out of ten.

The best texts in all groups were very similar. The grammatical structures were mostly correct and the reader had no problems understanding the text. The following example was written by a girl in the content-oriented group.

- (10) [...] We live in Vaasa, in Finland. My hobbies are volleyball and gym. I started volleyball when I was seven years old. I have many many friends but guess what! There is only three girls in our class. But I don’t mind. In fact I don’t even notice it anymore. But boys are a little bit crazy sometimes [...] (CG/G1)

This is only a third of the whole text. The structures and spelling are mostly correct, apart from ‘there is’ instead of ‘there are’ and she writes fluent English with a clear structure rather than just writing sentences without any connection. The whole text got nine and a half points out of ten. In the good texts, the pupils often used specialized vocabulary, as can be seen in the next example.

- (11) [...] I started skating two years ago. It’s cool because you can do many different tricks. You need a deck, trucks, wheels, skate shoes. You don’t have be rich if you wan’t skate. You have to find out are you goofy or regular. When you slide try to be in balance. (TG/B7)

This is written by a boy in the traditional teaching group. He knows the special vocabulary related to his favourite hobby, but the knowledge of grammar is at a less advanced level. ‘To’ is missing from two places (‘have to’ and ‘want to’) and there is an extra apostrophe in ‘want’. Also, the sentence starting ‘you have to find out’ should continue ‘whether you are goofy or regular’. Despite the errors, the writer succeeds in conveying the message. This text got seven and a half points out of ten.

- (12) Hello [...]! My name is [...] and I'm 12 years old. I live with my mother and father. I have got a dog called Kiki. My hobbies are swapping and playing cello. I enjoy listening to music and playing computer games, and of course, I love my dog. I hate animal tests and mean people. Do you have pets? Best regards, [...] (IG/G1)

This final example is written by a girl in the immersion group. It has the structure of a letter. The text is fluent and correct, and the writer successfully uses structures which are not present in the most texts, like 'I enjoy listening to music.' This text got ten points out of ten.

The previous examples illustrate perhaps best the difference between the groups. The weak texts in the traditional teaching group may have many words, but there are usually severe problems with grammatical structures and vocabulary. There are often Finnish words in the middle of an English sentence and it is not rare that the message remains unclear. The weak texts in the immersion and content-oriented group may have been short and had numerous spelling errors, but they rarely failed to convey a message altogether. Finnish words were rarely found in the texts of immersion and content-oriented pupils, rather the influence from the mother tongue has been visible in the word order. These results suggest that immersion teaching and content-oriented teaching may better meet their goals in educating fluent communicators. The good texts had a lot in common regardless of the teaching group. The communicative goals were met, and there were few problems with the structures or spelling. Specialized vocabulary may have been used and the texts were also occasionally lengthy.

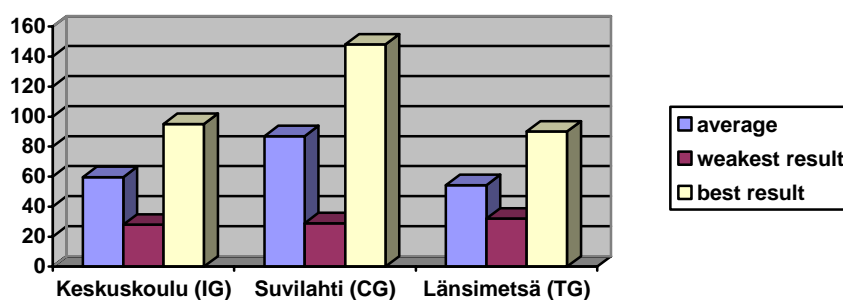
5.3.3 Length of the texts

Apart from comparing the pupils' performance in writing intelligible English, writing test II was also used in counting the length of the texts. In the first writing test, this was not possible as the pupils were given a relatively strict framework within which they had to write their short messages, and all texts were of approximately the same length. The second writing test provided the pupils with a few introductory sentences in Finnish

and an instruction to write at least seven sentences about the chosen subject. The minimum requirement was set at seven sentences, no maximum length was given

By far the longest stories were written by the content-oriented group. They had an average word count of 86,9. The immersion group wrote the second longest texts, with an average of 59,7 words, while the traditional group was not far from it with their average of 54,3 words. As can be seen from Figure 6, the TG and the IG have rather similar results concerning the length of the texts. The shortest text in the IG was 28 words and the longest 95 words. The same figures for the TG were 32 words for the shortest text and 90 words for the longest text. The content-oriented group stood out with their long texts: the shortest text was 29 words, very similar to the other groups, but the longest text was 116 words, almost twice as long as an average text in the other two groups. It was not the only long text, either. The content-oriented group had four texts with more than 100 words.

Figure 6. Length of the texts in writing test II.



My hypothesis was that immersion and content-oriented pupils would produce longer texts than the traditional group because teaching in the first two groups place emphasis on using English in the classroom. The hypothesis was partly right in that there was a clear difference between the groups, but only in favour of the content-oriented group. The immersion pupils wrote texts that were very similar to the traditional group in length, but clearly shorter than those in CG. It may be that in CG there has been more

time to get used to writing in English and also more writing exercises than in the other groups as the amount of weekly English lessons is greater in CG as in the other two groups.

5.3.4 Lexical density in the texts

Lexical density was also calculated from the second writing exercise, and the proportion of lexical words was counted from every text. Lexical density illustrates how densely packed information is in a sentence and that the higher the lexical density is the more complex is the sentence. The analysis of lexical density started with the assumption that as the pupils in the present study are learners of English, they would not produce very complex sentences but rather their writing would resemble native speech in terms of complexity. In the immersion group, the average lexical density was 0,63, which means that 63% of the words in the text were lexical and the rest grammatical words. Also the traditional group had an average of 0,63. The content group had the highest average of 0,65. The differences between the groups were insignificant, but they clearly fell closer to native written than spoken English. Differences within the groups were greater than those between the groups. Here, the content-oriented group was the most homogeneous of the groups, with the lexical densities ranging from 0,59 to 0,67. The traditional group was next with a range from 0,53 to 0,72. The greatest deviation was in the immersion group, with a range from 0,55 to 0,76.

The fact that the starting assumption was proven wrong may imply that the difference between learners and native speakers of English does not become evident in the lexical density. The lexical densities of these written texts were very similar to Halliday's examples of written texts (cf. Chapter 4 of this paper). Furthermore, the fact that the lexical densities in the three groups were very similar may imply that the method of determining lexical density does not bring out differences in learner texts. In other words, two texts may have the same proportion of grammatical words and lexical words, and yet one may be totally correct, while the other may have half of the words spelled incorrectly and still have the same lexical density. The contribution of the analysis of the lexical density is that the method would probably better suit in

determining the difference between speech and writing rather than bringing out differences in texts written by learners.

5.4 Error analysis of the texts

For the error analysis, all the errors in both of the writing exercises were identified and divided into grammatical, orthographical and vocabulary errors. Before discussing the results, some challenges of the categorisation of the errors will be presented, with an account of how the challenges were dealt with. This is, then, followed by the findings of the error analysis. First, the percentage of the errors made by each group will be given, followed by a chart illustrating the division of errors made by the three groups. Finally, examples of grammatical, orthographical and vocabulary errors will be given along with qualitative observations of the different types of errors.

Categorizing and analysing the errors in the written texts was not an easy task. To avoid problems, the categories for the error analysis were carefully chosen to be as clear-cut as possible. For this reason, discourse as a separate section was left out from Brown's original division (see section 4.2). Although the categorisation of errors was made as clear-cut as possible, assigning the right category for an error was not always unproblematic, as sometimes errors seemed to be able to belong to more than one group. One of the most challenging tasks was to make the division between an orthographical and a grammatical or vocabulary error. For instance, if a pupil writes 'five year old' (TG/B9), it is hard to determine if he has made a grammatical error by omitting the plural '-s' and not just misspelled 'years'. Furthermore, it is sometimes unclear where the line between an orthographical and a vocabulary error goes. In '12 ears old' (IG/G13), the pupil has probably misspelled 'years' but, as a result, written a word with a totally different meaning which may be considered a vocabulary error. To solve this problem, errors were considered orthographical only if the result did not change the meaning of the word. In the previous examples, then, 'year' would be considered as a grammatical error with the plural '-s' missing, and 'ears' would be considered as a vocabulary error, as the meaning of the word changed from the possibly

intended 'years'. A line also had to be drawn with the different versions of the number 'three'. There were four versions of number 'three' in the texts: the correct 'three', 'tree'³, 'tre' (IG/G13, IG/B2, CG/B9, TG/G10, TG/G11) and 'trhe' (IG/B6). The last one was a clear spelling error that did not change the meaning of the word. 'Tre' may be a spelling error, but it is also a transfer from Swedish (tre), and, thus, considered a vocabulary error. 'Tree', then, may also be a result of a transfer from Swedish or a spelling error, but following the above guideline, 'tree' was also considered as a vocabulary error, as it changed the meaning of the intended word. There were, however, not many instances of dubious errors.

In this corpus, there were a total of 637 errors. The pupils in the immersion group made most of the errors, 41,2% of all. The traditional group accounted for 35,7% of all errors, and the content-oriented group made the least errors, 23,1%. This result supports the hypothesis that immersion pupils would make the most errors. Content-oriented group, in contrast, wrote the most correct English. The traditional group fell in between.

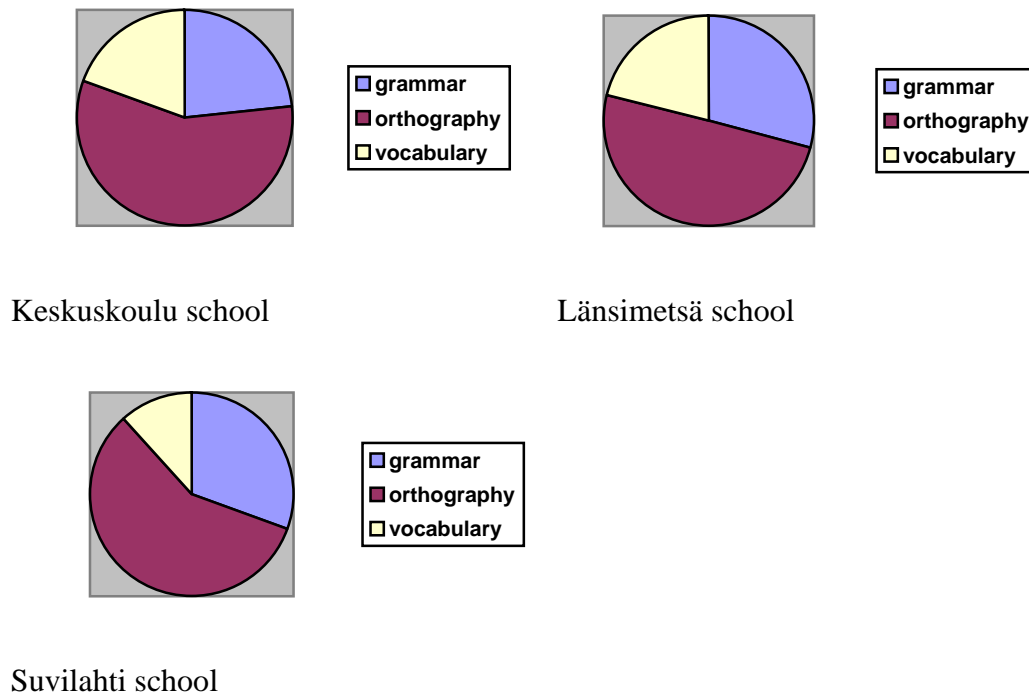
The proportions of grammatical, orthographical and vocabulary errors followed a similar pattern in all three groups. Most of the errors were orthographical. The second largest error group was grammatical errors and least errors occurred in the vocabulary. As mentioned earlier, all possible orthographical errors which resulted in changing the meaning of the word were counted as errors in vocabulary and not orthographical errors. The fact that the amount of vocabulary errors even when this is considered is small compared to orthographical errors tells that the dubious instances were not abundant.

Figure 7 illustrates the relative proportions of the error types in each of the three groups. In the texts of the immersion pupils, orthographical errors made up 57,4% of the total amount. The immersion pupils had 23,2% grammatical errors and 19,4% vocabulary errors. The error type division was rather similar in the traditional group. Of the errors in the traditional group, 49,8% were orthographical, 29,1% grammatical and 21,1% vocabulary errors. In the content-oriented group, orthographical errors constituted

³ The form 'tree' appeared in the following papers: IG/G12, IG/G4, IG/G3, IG/G2, IG/B4, CG/G2, TG/G1, TG/G4, TG/G8, TG/G9, TG/G12, TG/B13, TG/B8, TG/B5 and TG/B2.

57,9% of the total amount. There were 30,6% of grammatical errors, which is the largest proportion of the three groups and a mere 11, 6% of vocabulary errors.

Figure 7. Error types in the writing exercises.



The second hypothesis stating that immersion pupils would make the most spelling errors was supported earlier by the total number of errors. The content-oriented pupils wrote the most correct English. In this figure, the content-oriented group seems to have the largest proportion of orthographical errors, which might seem to contradict these findings. This figure, however, shows the relative proportions of the error types. After all, the immersion pupils made almost twice as many errors as the content-oriented pupils. A little surprising may be the fact that the content-oriented group has the largest proportion of grammatical errors. The differences, however, are not great. It is also to be noted that not all errors were equally severe. There can be minor errors, a missing letter or a wrong word order and major errors, which, at worst, hinder the reader from getting the intended message. As was mentioned earlier, the errors were often minor in

immersion and content-oriented groups. All in all, there was very little difference in the proportions of the errors in all three groups. Only the relative number of vocabulary errors made by the content-oriented pupils is notably smaller than with the other two groups. This suggests that the content-oriented pupils have a good command of vocabulary, with little interference from Finnish. As the mere division of errors fails to show the difference between errors, a qualitative analysis of the different errors in each category will follow next.

5.4.1 Grammatical errors

One of the research questions this study aims at answering was whether the immersion pupils would be outperformed by the other groups in terms of grammatical knowledge. It turned out to be quite the opposite, as shall be seen from the findings. From the corpus of grammatical errors, two structures arose which seem to be the most problematic. They were the noun and verb concord and, again, the ‘s’-ending in the third person singular in the present tense. The latter was also one of the most commonly committed errors in the grammatical exercise, and these two structures constituted half of all the grammatical errors. There were numerous examples of concord errors when the pupils wrote about their hobbies:

- (13) [...] my hoppy are football. (CG/B10, CG/B15)
 My hobby ar raiding (IG/G2)
 My hobby is playing violin and gymnastics. (TG/G8)
 My hobbies are basketball. (TG/B6)

As this example shows, all the groups had problems with this structure. Another problematic issue was again the ‘s’-ending. All the groups had some errors with the ‘s’-ending missing, but the most problematic it seemed to be for the pupils in the traditional group. In their texts, ‘mother want’ appeared in an astonishing seventeen papers out of twenty-five (e.g. TG/B13, TG/B11, TG/B10, TG/B7, TG/G4, TG/G9). In addition, there were also six occasions where the ‘-s’ was there, but with an apostrophe, as in ‘want’s’. Three of these cases were in the content-oriented group (CG/B15, CG/B7, CG/B2) and three in the traditional group (TG/B2, TG/G12, TG/B10). In the content-oriented group,

there were also cases of over-generalization, which might be due to intralingual interference:

- (14) [...] mum and dad doesn't [...](CG/G3)
 [...] she saids that [...] (CG/B11)

In the above, the third person 's'-ending is used with a plural subject in the first case and attached to the past tense in the latter example. Over-generalization of the third person 's'-ending in the third person singular in the present tense did not appear in the test papers of the other two groups. The immersion pupils had few other errors apart from these two types. In the content-oriented group, there were also errors in the verb tenses, as the following example will show:

- (15) I start football in 1990. (CG/B15)
 Where you living? (CG/G3)
 [...] you be take [...] (CG/B12)

In the first sentence of example 15, the pupil has failed to use past tense, and the second sentence has an incorrect form of present continuous tense. These two sentences are, despite the errors, intelligible, while the intended message in the final sentence is unclear. In the exam papers, there were also errors with the genitive case. 'My school name' appeared twice (CG/B3 and CG/B11), with the genitive '-s' missing, and 'shes name' (CG/B13) appeared once. Other errors in the content-oriented group were minor, such as an omitted article or a missing 'to' in 'I like play' (CG/B13).

In the traditional group, apart from the errors in the noun and verb concord and the third person 's'-ending, there appeared a number of errors with the use of the singular and plural as shall be seen in the following example:

- (16) I have one sisters and two rat. (TG/G3)
 My names is [...] (TG/B11)
 I have a two gerbil's they is my pets. (TG/G6)

The singular and plural of nouns are taught during the very first year of learning English, but in this group it still seems to be causing problems in the sixth grade. As in the content-oriented group, there were errors with the use of the genitive; ‘My school name’, for instance, appeared three times (TG/B11, TG/G2, TG/B12). The bulk of the remaining errors consisted of phrases and sentences with so many errors that they were on the verge of being impossible to interpret.

- (17) You have to go umbrella. (TG/G12)
 I don’t home maa. (TG/B8)
 She be interesting. (TG/G2)
 I knew something if yours family. (TG/G7)
 School is sucs. (TG/G1)

Although there were errors in the immersion and content-oriented groups, and in the latter group, even a few cases where the intended message was somewhat unclear, the traditional group had by far the most cases where the message could not be interpreted in any way, as can be seen in Example 17. Errors such as these prevent the communication altogether. This was not at all usual in the other groups, and it is hence one of the most crucial differences between the groups. This supports the earlier findings that the immersion and content-oriented pupils seem to have gained a better understanding in the structures of English. This is manifested in fewer errors as well as errors which are minor in quality and often do not prevent communication.

5.4.2 Orthographical and vocabulary errors

Orthographical errors were by far the largest group of errors. In each group, they constituted half of all the errors made. The vocabulary errors, then, even at most, constituted a fifth of the errors. It should be noted here, however, that Finnish is a phonemic language and English is not. The pupils, drawing from the knowledge of writing Finnish, attempt at writing English in similar way and end up making errors. In the orthographical errors there were no qualitative differences between the groups. There were, however, some errors which were common to all groups. The form ‘whit’

for ‘with’ appeared in all groups, in a total of 12 cases⁴. The spelling of some words seemed to cause problems and result in many different versions of the word. For instance, for the word ‘umbrella’, the following versions were found: ‘umberelle’ (TG/B5), ‘umprella’ (IG/B9, IG/B3, CG/B10) ‘umburella’ (IG/G5, IG/B5) ‘umberella’ (TG/B2, IG/G8, IG/G1, IG/B6) ‘ubrella’ (IG/G7) and ‘ambrella’ (IG/G2). Another example is ‘o’clock’ which was written in the following ways: ‘a clock’ in 21 cases (e.g. TG/B2, TG/G10, TG/G11, IG/G12, IG/G8, IG/G5, CG/G3) ‘clok’o (TG/G8), ‘klouk’ (TG/B13), ‘o’kloc’ (TG/G1, CG/B10), ‘o’ckoc’ (TG/G9) ‘a closck’ (CG/G2) and ‘of clock’ (CG/B6).

Possible spelling errors which resulted in changing the meaning of the word were judged to belong to the category of vocabulary errors. For example:

- (18) She is 5 ears old. (TG/B8)
 [...] 5 yours ago. (CG/B1)
 She wants to meat you. (IG/B7, TG/G11)
 I am 12 ear ago. (TG/G10)

In the sentences of this example, the reader can guess the intended form although the erroneous spelling changes the meaning of the word. In the last sentence, ‘old’ is replaced with ‘ago’, which makes it somewhat harder to understand than the previous examples.

The vocabulary errors may have been due to interlingual transfer, that is influence from Finnish or Swedish and intralingual transfer, that is correct English words but in the wrong place. There were few instances of the latter. For instance, ‘rain coat’ (CG/B12) and ‘rainbow’ (IG/G10) were used instead of ‘umbrella’. Also, in the place of ‘railway station’ the following words were used: ‘real station’ (TG/B13), ‘train central’ (IG), ‘trane center’ (CG/B15), ‘rail station’ (TG/B2, IG/G1 and IG/B8) ‘rileway’ (TG/G11) and ‘railroad station’ (IG/B9). In the texts, there was interlingual transfer from both Finnish and Swedish in all groups. The influence of Swedish was expectedly the

⁴ ‘Whit’ appeared in TG/B5, TG/B7, TG/G6, TG/G11, IG/G9, IG/G8, IG/G5, IG/B8, IG/B7, IG/B4, IG/B3 and CG/B1.

greatest in the immersion group, as Swedish was their immersion language. They had 25 instances of Swedish words in the English text. The traditional group had 6 and the content-oriented group 2 Swedish words in their texts. Sometimes the English and Swedish words are very close to each other, as in the following example. The English equivalent is provided in brackets.

- (19) klass (class) (IG/G12)
 boll (ball) (IG/G9)
 musik (music) (IG/G11)
 fotboll (football) (IG/B4)
 syster (sister) (CG/B2)

When there are Swedish words like the ones in example 19 which closely resemble their English equivalents, the reader can still follow the writer's line of thought even without the knowledge of Swedish. In some of these cases, the pupil may not even have realized having used a Swedish word as the differences between the languages are so small.

There were, however, also cases in which the Swedish word did not resemble its English equivalent, as in the following example. The English translation is again provided in brackets.

- (20) paraply (umbrella) (IG/G11, IG/G9)
 rideleger (riding camp) (IG/G2)
 mjölk (milk) (TG/B10)

When there are words like those described in Example 20 in the middle of an English sentence, the text may be unintelligible for a reader without the knowledge of Swedish. Overall, besides using Swedish words in the English text, the influence of Swedish was manifested in word order or structures. Both the intended structure in English and its equivalence in Swedish are provided in brackets.

- (21) klock tre (three o'clock; klockan tre in Sw.) (IG/G10, IG/G2 and CG/B12)
 most can (must be able to; måste kunna in Sw.) (IG/B2)
 we have haft (we have had; vi har haft in Sw.) (IG/G2)

In the above examples, the text may be unintelligible for an English reader, as the knowledge of Swedish structures is required for understanding the writer's intentions. In the immersion group, a transfer from Swedish was the only source of error which stopped the flow of communication. As an answer to the first research question, the immersion group indeed had more influence from Swedish than the other two groups.

The fact that there was some transfer from Swedish also in the traditional and content-oriented groups may seem surprising. The pupils may have, however, chosen Swedish as an optional language starting from the fifth grade, and that is probably the source of the influence. Also, Swedish is widely used in Vaasa, and some of the pupils may hear a lot of it in their free time.

As with the influence of Swedish, one group had markedly more influence of Finnish than the other groups. In the texts of the traditional teaching group, there were 28 words in Finnish. Both the immersion and the content-oriented group had merely 3 Finnish words in their texts. Unlike in the cases of transfer from Swedish, where a Swedish word might sometimes go unnoticed, Finnish words have so little resemblance with their English equivalents that the flow of communication stops without exception. The next example will illustrate the cases of Finnish transfer:

- (22) Take your sateenvarjo. (IG/B2, TG/B11 TG/G6, CG/B8)
 Mother is sateenvarjo. (TG/B8)
 Basciball is easi laji longer kuin I'm. (TG/G1)
 Big mother like tavata mother huomenna. (TG/B8)

The first sentence in this example was found in all three groups, five times in the traditional group and once in the other two groups ('sateenvarjo' is 'umbrella' in English). Apart from this, there were very few instances of Finnish words in IG and CG. A host of examples could be found in the texts of the traditional group. In the third sentence, the intended meaning remains unclear even with knowledge of Finnish. The writer may have tried to say that basketball is an easy sport as she is so tall, but even that is not self-evident. In the final sentence of Example 22, the writer has intended to say 'grandmother would like to meet the mother tomorrow', but the writer, perhaps

failing to remember the word ‘grandmother’, has made his own literal translation of the word (‘isoäiti’ in Finnish literally means ‘big mother’). Instances of this kind of transfer are easily recognized from an English text, as direct translations or transferred structures very often do not work in English, as can be seen from the following example:

- (23) I hoppy skeiting. (CG/B14)
 Stationin in front of. (TG/B10)
 A couple of years then. (IG/B8)

This kind of transfer could be found in all groups. In the first sentence, the writer has used ‘hoppy’ as a verb. In Finnish, the stem of the word is used to form both the noun and the verb (‘harrastus’ [noun] – ‘harrastaa’ [verb]). In the second sentence, there is a Finnish genitive ending attached to the word ‘station’, and also the position of the preposition follows the Finnish practice of using a postposition here. In the final sentence, ‘then’ is used instead of ‘ago’, which may have occurred as ‘ago’ and ‘then’ are homonyms in Finnish.

Considering the first research question of whether the immersion pupils will have more transfer than the other groups, it seems clear that they had more transfer from Swedish than the pupils in the other groups. In the case of Finnish influence, the results were different. By far the most cases of transfer from Finnish could be found in the traditional group. The content-oriented group had clearly the least amount of transfer altogether. This became evident also from the division of the error types, where the content-oriented group had less vocabulary errors compared to the other two groups. This supports the earlier findings of the content-oriented group writing the most correct English.

5.5 Differences between boys and girls

There is an old stereotype according to which girls are generally better in languages and boys are more often mathematically talented. Although an over-simplified generalization, it still seems to sit firmly in people’s minds. The differences between the

two genders in this test will prove the old stereotype wrong. All the three groups had a different pattern when the results of boys and girls were compared. In the immersion group, the results of boys and girls were generally quite similar, although there were minor differences. Boys performed slightly better in grammar and vocabulary tests, whereas girls achieved a better average in both writing tests. In the traditional teaching group, boys outperformed girls in every section of the test. The difference in favour of the boys was greatest in the grammar exercise and the first writing exercise. As boys are sometimes more active in playing computer games and using the internet, this may have had a favourable effect on their language skills. In contrast to the other groups, in the content-oriented group the girls had slightly better averages than the boys in all sections. The greatest difference appeared in the second writing exercise. In the content-oriented group, there were only three girls in the whole class, and all three performed above average, with only minor differences between them. The result may have been different had there been more girls in the group. All in all, boys were better in the traditional group, girls were better in the content-oriented group and in the immersion group both genders had their special areas of expertise.

Although every effort was made to construct a test which would not favour either of the genders, there was a detail of the test in which girls were better than boys in every group. This was the length of the texts in the second writing exercise. Writing seemed to come more naturally to the girls, and their stories were generally longer than those of the boys. Girls in the immersion group had the average length of 66,4 words in their stories, as opposed to the boys, who had stories of 52,9 words in average. In the traditional group, girls' stories were 60 words in average, whereas the boys' stories were some 48,5 words long. The difference was the greatest in the content-oriented group, where the girls wrote stories of 110 words in average, and the boys' stories had the average of 63,8 words. Again, such a great difference may be at least partially explained by the fact that there were only three girls in the group. It is also to be noted that the length of the stories does not always correlate with correctness. In the immersion and content-oriented groups, the girls also got better grades for their stories than boys, but in the traditional group, the grades of boys were better although the girls wrote longer stories.

6 LIMITATIONS IN MEASURING TEACHING

Bringing out differences between teaching styles with the help of a test is a challenging task. There are bound to be differences but it is hard to determine which differences result from the teaching method and which from something else. Some factors which may influence the results will be discussed next, followed by an evaluation of some of the points in the testing process.

The pupils in Suvilahti and Länsimetsä schools come from an area surrounding the school, and hence the pupils live rather close to the school. In Keskuskoulu school, the parents of the pupils have chosen immersion teaching as early as in the kindergarten, and the pupils may come from all parts of the town. The fact that the parents have chosen this school requires a certain interest in education in general, and the parents may be better than averagely equipped for helping and supporting the learning of their children. This may have an effect on the results. Also, the fact that immersion pupils have been in the same group since kindergarten has at best a positive influence of a good team spirit. Of course, if the team spirit is not good, it will have an adverse effect. Information of whether the composition of the classes has changed during the years, that is whether members of the groups had moved or new members joined in, was not available. However, the English teacher had been the same in all groups since they had started learning English.

As became evident in the description of the error analysis, it was not always possible to determine whether an incorrect form was an error or a mistake. In the scope of this study, it was impossible to elicit more answers from the pupils. Therefore, there may be instances where a careless mistake was counted as an error. It is, however, unlikely that this distorted the results.

The test design proved to be able to bring out differences between the pupils and the groups. In many cases, though, the qualitative analysis proved to be more revealing than the quantitative results. If the test had to be reconstructed, it could be revised towards having more written production and less cloze exercises, as the analysis of written texts

was more revealing of the differences than the numerical results of cloze tests. Error analysis and qualitative observations proved to be effective in the analysis. They helped to form a clear picture of the differences between the groups. Lexical density, in contrast, failed to bring out differences. It was assumed that pupils with good language competence would produce English which would be closer to the written language of a native speaker whereas pupils with weaker competence would produce English closer to native spoken language. The results of lexical density, however, proved that all texts had lexical densities of the written language, with no differences between the groups. Lexical density as a tool in analysis, therefore, appeared to be better suited in determining differences between spoken and written language.

7 CONCLUSIONS

The aim of this study was to find out whether the method of teaching would have an effect on the English language skills of the sixth grade pupils. Three teaching methods were included in the study: immersion teaching, content-oriented teaching and traditional teaching. The most crucial difference between the teaching methods was the amount of English used in the classroom. The material for this study was collected by administering a test in three sixth grades in three different primary schools in Vaasa. The test consisted of three parts: a vocabulary section, a grammar section and a writing section. The vocabulary and grammar sections were graded and the results compared both quantitatively, in terms of points achieved, and qualitatively. A more detailed analysis was made of the writing exercises, of which there were two. They were graded and the results were compared, again both quantitatively and qualitatively. Also, the length and lexical density of the texts was analysed and an error analysis was carried out. The errors were divided into grammatical, orthographical and vocabulary errors and their proportions in each group was analysed. Finally, qualitative observations of the error types were made.

The thesis started with two hypotheses and two research questions formed on the basis of the findings in the previous studies. The first hypothesis was that the pupils in immersion and content-oriented groups would produce longer texts than the pupils in traditional teaching group. The second hypothesis was that the immersion pupils would make the most spelling errors. In addition to the hypotheses, two research questions were formulated. First, whether the immersion pupils would have more interference from Swedish and Finnish than the other two groups, and second, whether the immersion pupils would be outperformed by the other groups in grammatical exercises?

The first hypothesis was partly supported by the fact that the longest stories were written by the content-oriented group. The immersion group wrote stories very close to the traditional group in length and notably shorter than the content-oriented group. The content-oriented group had had more English lessons than the other two groups, and this could be seen, among other things, in fluent writing. The second hypothesis was also

partly supported by the findings of this study. The results of the error analysis proved that the immersion pupils made the most errors and content-oriented pupils the least errors. Pupils in the traditional teaching were in between the other groups. The error analysis further divided the errors into orthographical, grammatical and vocabulary errors. The proportions of the different error types were very similar in all groups. Orthographical errors constituted roughly half of the errors in all groups. The second biggest group was grammatical errors, while vocabulary errors formed the smallest group. Even though immersion pupils quantitatively made the most mistakes, the qualitative observations brought out an important finding. There were large differences in the quality of the errors. There were minor errors, such as a missing letter, which did not hinder communication in any way, and there were major errors which resulted in making the text unintelligible for the reader. A noteworthy finding was also that the errors in the immersion group, although large in number, were most often of the minor type, which did not stop the reader from getting the intended message. The errors made by the traditional group were often major ones, which made the text impossible to follow. The content-oriented group seemed to have more cases of the major errors than the immersion group, but not as many as the traditional group.

Answers to the research questions were found on the basis of the findings. The first question asked whether immersion pupils have more influence from Swedish and Finnish than the other groups. The immersion pupils had indeed the most cases of interference from Swedish, both in terms of direct loans as well as transferred structures or word order. Also, the few cases in the immersion group where the flow of communication stopped and the reader could not get the message were all brought on by a transfer from Swedish. The immersion pupils had very little transfer from Finnish, however. The most influence of Finnish could be found in the traditional group, again both in direct loans and transferred structures. The result of transfer was most often that the text ceased to communicate and became unintelligible to the reader. The content-oriented group had only a few instances of transfer from either language. This seems to suggest that they have a good command of vocabulary in English and that they are accustomed to using the language for communication.

The second question was about the learning of grammar. As grammar is not explicitly taught in immersion teaching, it seemed likely that the immersion pupils would have less knowledge of grammatical structures. Nevertheless, the immersion pupils gained the best results in purely grammatical exercises, and also the qualitative observations showed that the errors of the immersion pupils were often small enough not to hinder communication. The fact that the starting assumption was proven wrong seems to suggest that immersion teaching is effectively meeting its goals in concentrating in communication in the classroom, as an awareness of the grammar develops from that.

However, good pupils seem to be good regardless of the teaching method. There were striking similarities among the good results in all groups. The gap between the good and the weak pupils was the greatest in the traditional group. The best pupils were very similar to those in other groups, whereas the weakest pupils hardly got anything intelligible written in a foreign language. One of the merits of the immersion group was that the difference between the best and the weakest results was not great; the immersion group was the most homogeneous group in the test. The content-oriented group was in between the two other groups; there was a gap between the good and the weak, but it was not as great as that in the traditional group.

One of the important outcomes of this study is the finding that using the target language as much as possible seems to pay off in developing the pupils' communication skills. The increased use of the target language seems to improve language skills in such a way that it should be recommended in all language teaching, regardless of the method.

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APPENDIX 1. The test

I Personal information

Name: _____

School: _____

1. I think my knowledge of English is

(colour or mark with x)

written English

excellent good o.k. poor

spoken English

excellent good o.k. poor

2. I think studying English is

Good luck for the test!

II Vocabulary

1. Write a suitable word on the line.

- a) It's a language. _____
- b) It's a very bad dream. _____
- c) It's a vehicle. _____
- d) It's a sport for two. _____
- e) It's a musical instrument. _____
- f) It's made of wood. _____
- g) It's something you eat with. _____
- h) It's an animal in Africa. _____
- i) It's something brown. _____
- j) It's an insect. _____

2. Write the opposite of the word.

- a) beautiful _____
- b) full _____
- c) west _____
- d) near _____
- e) remember _____
- f) alive _____
- g) the future _____
- h) everything _____
- i) in front of _____
- j) after _____

3. Write 3-5

- a) summer words _____
- b) night words _____
- c) question words _____
- d) nature words _____

III Grammar

1. Choose the right alternative.

- a) I _____ start taking piano lessons next year. (will, don't, doesn't, am)
- b) I _____ got a piano at home. (has, is, am, have)
- c) My friends _____ not very interested in music. (is, have, are, do)
- d) My brother _____ the guitar. (play, playing, plays)
- e) He _____ play very well yet. (doesn't, is, has, isn't)
- f) Me and my brother _____ going to a concert next week. (is, will, are, does)
- g) Five days ago Emma _____ on a boat trip. (is, was, are, were)
- h) She _____ many kinds of fish. (see, saw, seeing)
- i) Emma wants to _____ the nature. (protect, protects, protecting)
- j) Many species of fish _____ die out in the future. (didn't, are, will, do)

2. Fill in the correct form of the word.

- a) Sean is the _____ (tall) boy in our class.
- b) I think bananas are _____ (good) than apples.
- c) We _____ (go) to a national park a week ago.
- d) Where _____ (do) you go yesterday?
- e) What on earth are you _____ (do)?
- f) He _____ (have) got three brothers.
- g) I _____ (be) happy on Monday because the sun was shining.
- h) Our teacher _____ (know) very much.
- i) Tim, Thomas and James _____ (be) best friends.
- j) No, we _____ (do) have rice for lunch last Friday.

IV Writing exercises

1. Jeff on yksin kotona kun isoäiti soittaa. Isoäidillä on asiaa Jeffin äidille. Koska äiti ei ole kotona, isoäiti pyytää Jeffiä välittämään viestin. Isoäiti haluaa tavata äidin huomenna kolmelta iltapäivällä rautatieaseman edessä. Äidin pitäisi ottaa mukaansa sateenvarjo. Kirjoita Jeffin välittämä viesti englanniksi.

2. Valitse toinen seuraavista aiheista ja kirjoita aiheesta ainakin 7 lausetta.

a) Kirjoita uudelle ulkomaalaiselle kirjeystävällesi ensimmäinen kirje, jossa esittelet itsesi. Kerro ainakin perheestäsi, ystävästäsi, koulustasi ja harrastuksistasi, asioista joista pidät ja joista et pidä. Voit myös kuvitella maan, josta uusi kirjeystäväsi on kotoisin ja kertoa, mitä tiedät hänen kotimaastaan.

b) Kirjoita jostain harrastuksestasi. Kerro ainakin milloin aloitit harrastuksesi ja miksi, mitä iloa harrastuksestasi on ollut, mitä välineitä siihen tarvitaan sekä onko harrastaminen kallista. Voit myös kertoa minkälaisia neuvoja antaisit ihmiselle, joka suunnittelee tämän harrastuksen aloittamista.

Appendix 2. List of test papers used in the study.

Keskuskoulu school IG (immersion teaching) B = boy G = girl

IG/G1	IG/B1
IG/G2	IG/B2
IG/G3	IG/B3
IG/G4	IG/B4
IG/G5	IG/B5
IG/G6	IG/B6
IG/G7	IG/B7
IG/G8	IG/B8
IG/G9	
IG/G10	
IG/G11	
IG/G12	
IG/G13	

Suvilahti school CG (content-oriented teaching)

CG/G1	CG/B7
CG/G2	CG/B8
CG/G3	CG/B9
CG/B1	CG/B10
CG/B2	CG/B11
CG/B3	CG/B12
CG/B4	CG/B13
CG/B5	CG/B14
CG/B6	CG/B15

Länsimetsä school TG (traditional teaching)

TG/G1	TG/B1
TG/G2	TG/B2
TG/G3	TG/B3
TG/G4	TG/B4
TG/G5	TG/B5
TG/G6	TG/B6
TG/G7	TG/B7
TG/G8	TG/B8
TG/G9	TG/B9
TG/G10	TG/B10
TG/G11	TG/B11
TG/G12	TG/B12